

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of )  
 )  
Empowering Parents and Protecting ) MB Docket No. 09-194  
Children in an Evolving Media Landscape )

**COMMENTS OF CTIA-THE WIRELESS ASSOCIATION®**

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February 24, 2010

## EXECUTIVE SUMMARY

CTIA – The Wireless Association® recognizes the prominent role that wireless devices and services are playing in the development of America’s children, teens and youth. Recent studies demonstrate that today’s children and teens are a tech-savvy generation that is embracing mobile devices and technologies at a stunning rate, not only to meet their communications needs, but also for broader educational, entertainment, safety, and other purposes. A recent Pew Internet & American Life survey found that 75% of children ages 12-17 now have a cell phone and the Kaiser Family Foundation found 20% of media consumption by children ages 8-18 (an average of more than two hours per day) occurs on mobile devices such as cell phones, iPods, and handheld video game players.

As part of this surge in children’s mobile technology use, all elements of the wireless ecosystem (*i.e.*, wireless carriers, infrastructure suppliers, device manufacturers, operating system providers, and application developers) have enabled numerous innovative and beneficial tools for children, from education to health care to safety and accessibility. In particular, mobile broadband Internet access facilitates “mLearning” educational tools for children of all ages, including “app stores” and thousands of educational “apps,” and other mobile content that enhance teaching and learning methods. In short, wireless carriers provide true “broadband to the person,” making possible the offering of substantial and personalized educational benefits for children wherever they may be.

EDUCATIONAL BENEFITS OF MOBILE DEVICES
<b>Broadband Internet Access</b> , including research tools and educational information.
<b>Access to App Stores and Thousands of Educational Apps.</b>
<b>Other Mobile Content</b> , including language and literacy programs, news and public affairs titles, educational games, and downloadable books.
<b>Enhanced Classroom Learning</b> , including through mobile assignments and electronic scheduling, real-time polling and feedback, classroom blogs and photography projects, language learning exercises, lecture recording and podcasting, expanded scientific research options, and remote/distance learning opportunities.

The wireless industry is facilitating the development of today’s children, teens and youth and preparing them for an increasingly digitized and mobile future. The Commission can help in this process by taking a number of steps. For example, it should:

- Coordinate with other agencies to encourage schools to review and update their existing technology policies to integrate mobile technologies and educational applications;
- Highlight the use of mobile devices as an additional platform for communicating with students, including by distributing assignments and other content directly to the devices; incorporating mobile “voting” and response activities in the classroom; and by developing audio recordings, videocasts, podcasts, or similar tools to assist home-bound and ill students;
- In cooperation with other federal and state agencies, encourage librarians and teachers to utilize handheld devices and digital downloads to expand the reach of school libraries;
- Modify the E-Rate and Lifeline and Link-Up programs to maximize opportunities for wireless broadband and mobile applications that otherwise fit within the scope of those programs.

In addition to educational benefits, mobile wireless services also offer unique communications, safety, mHealth, accessibility, civic participation, and skills development benefits for children, as illustrated below.

<b>BENEFITS OF MOBILE DEVICES FOR PARENTS AND CHILDREN</b>	
<b>COMMUNICATIONS</b>	Voice calling, voicemail, text messaging, e-mail, photo and video sharing, social networking, blogs.
<b>SAFETY</b>	Access to emergency and public safety services and related safety information, campus safety, access to Wireless AMBER Alert™ notifications.
<b>HEALTH</b>	Access to health care information, nutrition and fitness apps, child health and prenatal care apps, “pillbox” reminders, chronic disease assistance.
<b>ACCESSIBILITY</b>	Text-to-speech, voice activation, closed captioning, text and instant messaging applications, predictive text, word completion and spell check, customizable font and user interface features, alternate entry devices, TTYs, adaptive keyboards, screen readers, magnifiers, translators.
<b>CIVIC PARTICIPATION AND SKILLS DEVELOPMENT</b>	Access to documents and information about historical people and issues, information about the branches of government, political campaign information, general news and information sources, job training, content creation.

While there are numerous benefits mobile wireless access offers children, CTIA also recognizes that wireless devices and services may enhance opportunities for children to engage in irresponsible or inappropriate behavior on mobile devices and services, such as texting while driving, sexting and cyberbullying. Moreover, as carriers have moved away from the more protective “walled garden” approaches in response to consumer and governmental demands for open access and open devices, children are increasingly exposed to much of the same content that is available on the open Internet. CTIA understands that protecting children in online and mobile environments is a challenging task for industry, government and – especially – parents.

Despite these challenges, the wireless industry continues to respond with effective, innovative solutions to empower parents with choice and control over the mobile content and services their children increasingly utilize. To assist parents in facing these challenges, carriers and device manufacturers compete vigorously with one another to provide parents with tools to exercise control over mobile wireless content accessible by their children. In addition, CTIA has developed a number of best practices and voluntary guidelines under which participating carriers agree to provide significant protections for consumers and, most specifically, children. Moreover, CTIA and the wireless industry have introduced a series of initiatives and partnerships to educate parents, teachers and children about responsible and appropriate mobile usage, as outlined below.

### **PARTNERSHIPS**

**National Center for Missing & Exploited Children**  
**National Coalition for the Protection of Children and Families**  
**Family Online Safety Institute**  
**National Crime Prevention Council**  
**National Safety Council**

### **EDUCATIONAL OUTREACH**

*Get Wise About Wireless*  
**Model Family Cell Phone Agreement**  
**Wireless Safety Week**  
**Crime Prevention Month Kit**  
**CTIA “S-A-F-E-T-Y” Tips**  
*On Road, Off Phone Campaign*  
**Carrier Wireless Safety Websites**  
**Public Service Announcements**

## **WIRELESS INDUSTRY INITIATIVES TO PROTECT CHILDREN**

### **BEST PRACTICES**

**CTIA Guidelines for Carrier Content Classification and Internet Access**  
**CTIA Best Practices and Guidelines for Location-Based Services**  
**CTIA Best Practices and Guidelines for Mobile Financial Services**  
**Common Short Code Auditing and Monitoring Initiative**  
**Mobile Marketing Association Consumer Best Practices Guidelines**

### **CHOICE AND CONTROL TOOLS**

**Age verification**  
**Content filters**  
**Calling and text usage limits**  
**Camera function limitations**  
**Time of day restrictions**  
**Approved numbers restrictions**  
**Purchase limitations**  
**App ratings**  
**Parental notifications**

In addition to industry efforts, there is also a continuing and increased role for the FCC to:

- Inventory efforts by other government agencies and the private sector related to educating children on mobile media literacy and responsible online practices, and encourage and assist schools, libraries and other stakeholders to participate in that education process;
- Seek out opportunities to coordinate government efforts wherever possible, building on its recent cooperation with the Federal Trade Commission and the Department of Education in developing the *Net Cetera* online safety guidebook for parents; and
- Explore cooperative efforts with state attorneys general, many of whom have been active on these issues.

Given the industry’s ongoing commitment, the FCC can and should encourage stakeholders to help educate parents and children regarding safe, responsible mobile device practices, which will do more than any proscriptive regulatory regime intended to protect children.

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**COMMENTS OF CTIA-THE WIRELESS ASSOCIATION®**

**I. INTRODUCTION**

CTIA – The Wireless Association® (“CTIA”)<sup>1</sup> hereby submits the following comments in response to the Federal Communications Commission’s (“Commission” or “FCC”) October 23, 2009 Notice of Inquiry (“*NOI*”) in the above-referenced proceeding,<sup>2</sup> in which the Commission seeks comment on “the extent to which children are using electronic media today, the benefits and risks these technologies bring for children, and the ways in which parents, teachers, and children can help reap the benefits while minimizing the risks.”<sup>3</sup>

Children are embracing mobile technologies at a stunning rate, not only to meet their communications needs, but also for broader educational and entertainment purposes. Innovative mobile wireless services and mobile learning (“mLearning”) tools offer substantial, personalized educational benefits for children of all ages, and the FCC should encourage and incentivize their deployment and adoption wherever possible. Mobile wireless services also offer an array of

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<sup>1</sup> CTIA – The Wireless Association® is the international organization of the wireless communications industry for both wireless carriers and manufacturers. Membership in the organization covers Commercial Mobile Radio Service (“CMRS”) providers and manufacturers, including cellular, Advanced Wireless Service, broadband PCS, ESMR, and 700 MHz licensees, as well as providers and manufacturers of wireless data services and products.

<sup>2</sup> *Empowering Parents and Protecting Children in an Evolving Media Landscape*, Notice of Inquiry, 24 FCC Rcd 13171 (2009) (“*NOI*”).

<sup>3</sup> *Id.* ¶ 5.

advanced communications, safety, mobile health (“mHealth”), accessibility, civic participation, and other benefits for children.

Despite the emergence of new challenges to protecting children in the more “open” mobile wireless ecosystem, the wireless industry continues to empower parents with choice and control over mobile wireless content so that they may determine what is appropriate for their children and encourage responsible behavior. The wireless industry also has launched a number of educational outreach initiatives and partnerships designed to promote mobile safety and responsible use. These comments outline the many industry, carrier-specific, and third-party initiatives that are designed to empower parents, protect children, and encourage responsible mobile use.

Given the wireless industry’s substantial ongoing efforts, there is no need for the FCC to impose burdensome technology deployment requirements or proscriptive regulations in this area. The FCC can and should, however, encourage stakeholders to help educate parents and children regarding responsible mobile device practices. The FCC also should encourage further coordination among government entities reviewing these issues and become a one-stop source for information on federal, state, and private-sector efforts to protect children using mobile devices.

## **II. CHILDREN ARE USING MOBILE DEVICES TO ACCESS MEDIA ON A REGULAR BASIS**

In the *NOI*, the FCC seeks comment on children’s media use, including frequently used platforms and trends in media consumption.<sup>4</sup> The FCC also seeks data regarding children’s use of mobile devices and the Internet.<sup>5</sup>

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<sup>4</sup> See *NOI* ¶¶ 11-14.

CTIA recognizes the increasingly prominent and common role that wireless devices and services are playing in the development of America's children, teens and youth. Children are actively using mobile devices on a regular basis, and children are progressively using mobile phones at younger ages. For example, a January 2010 study by the Kaiser Family Foundation found that 20% of media consumption by 8 to 18 year-olds occurs on mobile devices such as cell phones, iPods, and handheld video game players—an average of more than two hours per day.<sup>6</sup> The *Kaiser Study* further reported that mobile devices “have facilitated an explosion in media consumption among American youth” and “has allowed – indeed, encouraged – young people to find even more opportunities throughout the day for using media, actually expanding the number of hours when they can consume media, often while on the go.”<sup>7</sup> The *Kaiser Study* also found that during the past five years, the percentage of children ages 8 to 18 who own their own cell phone has grown from 39% to 66%, while the percentage of children in the same age bracket with iPods or other MP3 players increased from 18% to 76%.<sup>8</sup>

The *Kaiser Study* is consistent with other recent reports concerning children's use of mobile devices. According to a February 2010 report by the Pew Internet & American Life Project, 83% of 17 year-olds now own a cell phone (up from 64% in 2004), and 58% of 12 year-olds now own a cell phone (up from 18% in 2004).<sup>9</sup> Overall, 75% of children ages 12-17

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<sup>5</sup> *See id.*

<sup>6</sup> *Generation M<sup>2</sup>: Media in the Lives of 8- to 18-Year Olds*, Kaiser Family Foundation, 3 (Jan. 10, 2010), available at <http://www.kff.org/entmedia/upload/8010.pdf> (last accessed Feb. 12, 2010) (“*Kaiser Study*”).

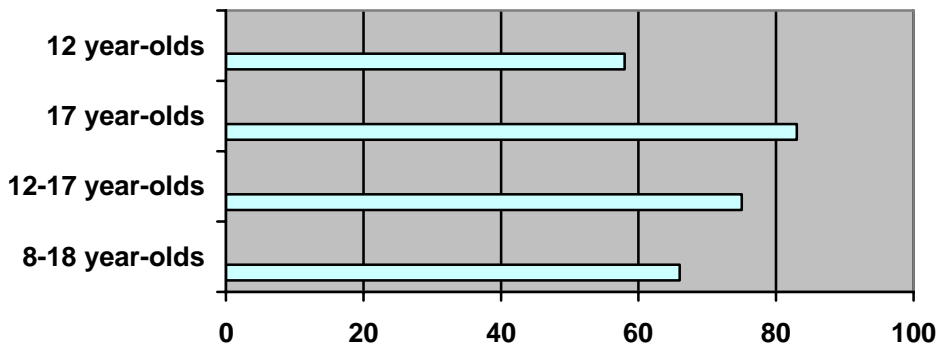
<sup>7</sup> *Id.*

<sup>8</sup> *Id.* at 3, 10.

<sup>9</sup> *Social Media & Mobile Internet Use Among Teens and Young Adults*, Pew Internet & American Life Project, 2 (Feb. 3, 2010), available at [http://www.pewinternet.org/~media/Files/Reports/2010/PIP\\_Social\\_Media\\_and\\_Young\\_Adults\\_Report.pdf](http://www.pewinternet.org/~media/Files/Reports/2010/PIP_Social_Media_and_Young_Adults_Report.pdf) (last accessed Feb. 12, 2010) (“*Pew Mobile Internet Report*”); see also *Teens and Sexting*, Pew Internet & American Life Project, 2 (Dec. 15, 2009), available at

now have a cell phone.<sup>10</sup> These children also see mobile devices as critical tools for meeting their communications needs. According to a 2008 survey from Harris Interactive, approximately one-third of children ages 13-17 said that it was “absolutely essential/very important” or “important” to have the latest and greatest cell phone for their purposes, and 57% of teens somewhat or strongly agree that having a mobile phone has improved the quality of their life.<sup>11</sup>

**Percentage of Children With Mobile Phones**



Source: Pew Internet & American Life Project

Children have also widely embraced text messaging as a communications medium. According to the *December 2009 Pew Report*, of the children ages 12-17 that own a cell phone, almost 90% use the text messaging feature, prompting the report’s authors to call texting a “centerpiece in teen social life.”<sup>12</sup> A separate study by the Nielsen Company found that in the fourth quarter of 2008, children ages 13-17 sent and received an average of 2,272 texts per

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[http://www.pewinternet.org/~media/Files/Reports/2009/PIP\\_Teens\\_and\\_Sexting.pdf](http://www.pewinternet.org/~media/Files/Reports/2009/PIP_Teens_and_Sexting.pdf) (last accessed Feb. 12, 2010) (“*December 2009 Pew Report*”).

<sup>10</sup> *Id.*

<sup>11</sup> *A Generation Unplugged*, Harris Interactive, 4-5 (Sept. 12, 2008) (“*Harris Interactive Survey*”).

<sup>12</sup> *December 2009 Pew Report* at 2.

month—an astonishing rate of almost 80 messages per day.<sup>13</sup> A comScore study from June 2009 also found that 64.2% of subscribers 13-17 years old sent text messages daily.<sup>14</sup> And the *Harris Interactive Survey* found that, with respect to text messaging capabilities, 67% of teenagers said they “love it” and would “die without it.”<sup>15</sup>

Children are increasingly using mobile devices for photo and video sharing, Internet access, applications (“apps”), and other data services. The comScore study found that, for children ages 13-17:

- 25.5% used a mobile browser to access news or information;
- 32.2% took photos weekly and 66.8% took photos monthly;
- 12.1% captured video weekly and 34.7% captured video monthly;
- 21.3% uploaded photos to the web monthly; and
- 19.8% used e-mail monthly.<sup>16</sup>

Further confirming children’s extensive use of mobile devices, the *Harris Interactive Survey* found that approximately one-third of teens are browsing the web on their phone, and 19% engage in social networking on their wireless devices, including status updates, messaging friends and family and posting and viewing pictures and video.<sup>17</sup> Moreover, almost two-thirds of teens frequently use a mobile device’s camera to take pictures, “love it,” and would “die without it.”<sup>18</sup>

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<sup>13</sup> *Texting May be Taking a Toll*, New York Times (May 25, 2009), available at [http://www.nytimes.com/2009/05/26/health/26teen.html?\\_r=2&hpw](http://www.nytimes.com/2009/05/26/health/26teen.html?_r=2&hpw) (last accessed Feb. 12, 2010).

<sup>14</sup> comScore (m:metrics) MobiLens, Messaging Usage, 3-Month Average Ending June 2009 (rel. Aug. 2009) (“comScore Study”).

<sup>15</sup> *Harris Interactive Survey* at 14.

<sup>16</sup> See comScore Study.

<sup>17</sup> *Harris Interactive Survey* at 21-22.

<sup>18</sup> *Id.* at 14.

Combined, these surveys and reports indicate a continuing trend that today's children are a tech-savvy generation and rely more and more on mobile devices not only to meet their communications needs, but also for broader informational and entertainment purposes. As discussed below, mobile services provide numerous educational and other benefits for children of all ages, and the FCC should look for ways to facilitate the deployment of these beneficial services to children.

### **III. MOBILE VOICE AND BROADBAND SERVICES PROVIDE NUMEROUS BENEFITS FOR CHILDREN, AND THE FCC SHOULD FACILITATE THE DEPLOYMENT AND ADOPTION OF THESE SERVICES**

The FCC seeks comment in the *NOI* on the benefits electronic media offer for children.<sup>19</sup> In addition, the Commission seeks comment on what actions can be taken to ensure that parents, teachers, and children are aware of these benefits. It also seeks comment on the extent to which educational content is offered over various electronic media platforms.<sup>20</sup>

As detailed below, innovative mobile wireless services – especially “mLearning” tools – offer substantial, personalized educational benefits for children of all ages, and the FCC should encourage and incentivize their deployment and adoption wherever possible. This educational content is widely available on mobile wireless devices, and marketplace incentives are sufficient to ensure continued growth in this rapidly changing area without additional government regulation. In addition to education benefits, mobile wireless services also offer an array of unique communications, safety, mHealth, accessibility, and civic participation benefits to children.

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<sup>19</sup> *NOI* ¶ 17.

<sup>20</sup> *Id.*

## **A. mLearning Tools Offer Significant Educational Benefits**

The virtuous cycle occurring throughout the mobile wireless ecosystem has brought an unbridled focus on enhancing network capabilities, bringing new products and services to market, and meeting consumer expectations. As part of these efforts, carriers, infrastructure suppliers, device manufacturers, operating system providers, and application developers have been instrumental in introducing countless innovative “mLearning” educational tools for children of all ages, including mobile broadband Internet access, apps and app stores, and other mobile content. As the Commission acknowledges in the *NOI*, mobile devices can enable “a personalized learning experience for children, encouraging children to learn outside of school, and reaching underserved children,”<sup>21</sup> and educators already have begun using these newly available tools to enhance teaching methods and improve learning.

### **1. Broadband Internet Access**

The evolution of wireless devices and mobile broadband in recent years has been nothing short of extraordinary, with continuous innovation and investment leading to significant advancements in the features, capacity, and connectivity of mobile devices. As a result, the vast majority of mobile devices sold today offer access to the Internet and associated educational content for learning, research, and skills development. In fact, more than 89% of the handsets operating on wireless carriers’ networks are capable of browsing the web.<sup>22</sup> All of the top five wireless providers in the U.S. and numerous smaller carriers, moreover, offer Wi-Fi enabled handsets.<sup>23</sup> Widely available at all price points, these mobile devices provide true “broadband to

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<sup>21</sup> *Id.* ¶ 18.

<sup>22</sup> See CTIA’s Wireless Industry Indices: Semi-Annual Data Survey Results: A Comprehensive Report from CTIA Analyzing the U.S. Wireless Industry, Mid-Year 2009 Results, 10, *available at* <http://www.ctia.org/advocacy/research/index.cfm/AID/10316> (last accessed Feb. 12, 2010).

<sup>23</sup> *Id.*

the person” and bring all of the educational benefits of the Internet to children wherever they may be, literally placing this access in the palm of their hands. Because most school districts do not have the resources to provide computers for every student, the Internet access available via a mobile device is often a child’s only broadband link.<sup>24</sup> This may be particularly true for students from low-income homes, where home broadband adoption is much lower than for upper and upper-middle income homes.<sup>25</sup> Minority students may also rely more on obtaining broadband from wireless devices. For example, the Pew Internet & American Life Project found that, while home broadband adoption remains relatively low for African American homes at 46%,<sup>26</sup> African Americans “are the most active users of the mobile internet,” and their use is growing at a faster pace than mobile internet use among whites.<sup>27</sup>

## **2. Apps and App Stores**

With the increased ability to access the Internet while on the go, and the significant growth and adoption of smartphones, an explosion of apps and “app stores” to run on these devices also has occurred, providing further educational opportunities for children. The app stores include thousands of applications with an educational or reference focus. In fact, the

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<sup>24</sup> As one article notes, “more educators are concluding that cellphones may be the only realistic way their schools can offer the 1-to-1 computing experiences that better-funded schools provide with laptops.” Education Week, *infra* note 333.

<sup>25</sup> See *Home Broadband Adoption 2009*, Pew Internet & American Life Project, 17 (June 2009), available at <http://www.pewinternet.org/~media/Files/Reports/2009/Home-Broadband-Adoption-2009.pdf> (last accessed Feb. 23, 2010) (“*2009 Home Broadband Report*”) (reporting that only 35% of households with incomes below \$20,000 had broadband, compared to 85% for households with income over \$75,000). Similarly, students from homes where the parents have less education are less likely to have broadband access at home. See *Kaiser Study* at 23 (also noting that children whose parents have no more than a high school education are less likely to go online from home in a typical day, compared to children whose parents completed college).

<sup>26</sup> See *2009 Home Broadband Report* at 18.

<sup>27</sup> See *Pew Mobile Internet Report* at 15. While this statistic relates to use by adults, the lower rates of broadband availability in African American homes suggests that African American children may also rely to a greater extent on mobile devices for their broadband access.

iTunes app store alone has more than 10,000 education apps and more than 5,600 reference apps available for download.<sup>28</sup> To highlight a few examples:

- The “Itsy Bitsy Spider” app is a digital book with interactive illustrations that includes music, counting, trivia, searching, and other learning activities.
- The “Baby Piano” app, designed for children between nine and thirty-six months, helps children explore music with an eight-key piano, multiple songs, and recording capabilities.
- “TeachMe: Kindergarten” is designed to educate kindergarten-aged children in sight words, addition, subtraction, and spelling; it gives parents the ability to select the subjects, difficulty levels, and specific questions, and review their child’s performance.
- “3D Brain” helps children discover how each brain region functions and what happens when it is injured, and it also contains information on modern brain research.
- “Pocket Universe: Virtual Sky Astronomy” generates a three-dimensional display of the sky above a child using time and location characteristics.
- “MatheMagics – Mental Math Tricks” teaches children how to perform advanced mathematical calculations quickly using a series of shorthand methods.
- “Graphing Calculator” assists algebra, calculus, and other advanced mathematics students by providing a function plotter and scientific calculator.<sup>29</sup>

Educational apps for smartphones and other mobile devices have led to competitions for the best in class. For example, Google selected the 2009 best mobile apps for Android in the education and reference category: “Plink Art,” an app for identifying, discovering and sharing art; “The Word Puzzle,” a fun way to learn basic English words for preschool children; and “Celeste,” an educational augmented reality app that displays the sun, moon, planets and their paths through the sky onto your camera view.<sup>30</sup>

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<sup>28</sup> As of February 12, 2010. CTIA’s discussion of all of the products described in these comments is based solely on the description and claims made by these companies in public fora, including company websites; CTIA has not evaluated any of these claims and does not endorse any particular product or service.

<sup>29</sup> See Apple iTunes Store and product descriptions as of February 12, 2010.

<sup>30</sup> *Google Names 30 Best Mobile Apps for Android*, ReadWriteWeb (Nov. 30, 2009), at [http://www.readwriteweb.com/archives/google\\_announces\\_winning\\_mobile\\_apps\\_for\\_android.php](http://www.readwriteweb.com/archives/google_announces_winning_mobile_apps_for_android.php) (last accessed Feb. 12, 2010).

### 3. Other Mobile Content

Complementing the thousands of education and reference apps and providing further learning content for children are language and literacy programs, news and public affairs titles, and educational games. In addition, an entire segment of the mobile device market dedicated entirely to promoting reading – “e-readers” and downloadable books – has developed in the past year alone. The booming popularity of e-readers and their potential impact on education became clear this past holiday season, when Amazon.com announced that its Kindle device had become the most “gifted” item in the website’s history.<sup>31</sup>

### 4. Innovative Teaching Methods

Mobile devices and services offer enhanced teaching methods than can improve learning. Some teachers, for example, use text messages to deliver assignments and deadline reminders.<sup>32</sup> In addition, mobile devices can be used to organize schedules, record a lecture, take pictures of a classroom demonstration, or make a podcast, and to transmit these recordings and photos to other students (*e.g.*, facilitating coordination for group assignments).<sup>33</sup> They can also be used to facilitate language learning.<sup>34</sup> Furthermore, class blogs and mobile blog postings can be used to encourage learning by promoting interactivity and writing skills development, and by allowing teachers to continue a lesson after the school bell rings.

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<sup>31</sup> *Amazon Kindle is the Most Gifted Item Ever on Amazon.com*, Amazon.com Press Release (Dec. 26, 2009), available at <http://phx.corporate-ir.net/phoenix.zhtml?c=176060&p=irol-newsArticle&ID=1369429&highlight=> (last accessed Jan. 4, 2010). Additionally, Amazon.com reported that on Christmas Day, for the first time ever, customers purchased more Kindle books than physical books. *Id.*

<sup>32</sup> *Teachers Begin Using Cell Phones to Text Class Lessons*, Charleston Gazette & Daily Mail (Nov. 29, 2009).

<sup>33</sup> *See, e.g., Students Turn Their Cellphones On for Classroom Lessons; New Academic Uses Challenge Restrictions*, Education Week (Jan. 7, 2009), available at <http://www.edweek.org/ew/articles/2009/01/07/16cellphone.h28.html> (last accessed Feb. 12, 2010) (“Education Week”). Similarly, the camera feature of many mobile devices can be incorporated into educational scavenger hunts or photojournalism assignments, which can also utilize the various “geo-tagging” and time-stamp functions available on many devices.

<sup>34</sup> *Id.*

As one empirical example of how mobile devices can benefit students, St. Mary's City Schools in Ohio partnered with Verizon Wireless to provide a class of third-graders with HTC XV6800 smartphones and *GoKnow!* mobile learning software.<sup>35</sup> For one assignment, the students took the devices on a museum field trip, took pictures, and then wrote about those photos for a grade.<sup>36</sup> Administrators expanded the program to other classes (including other grade levels) and found that students using the mobile devices had higher test scores and more improvement than their peers, while behavior incidents and late homework notices decreased “substantially.”<sup>37</sup>

Another innovative use of mobile devices in the classroom is real-time polling, which can make the lesson more interactive and fun for students and let teachers know right away whether students understood the lesson.<sup>38</sup> AT&T, for example, certified a mobile learning application in August 2008 that was designed to heighten the classroom experience and enhance learning at colleges and universities. The application, a Web-based solution that can be enabled using an AT&T smartphone, creates an interactive student response system that allows educators to go beyond traditional teaching methods. The application allows real-time student polling and offers in-depth analysis of responses, including tracking demographic information and ranking against criteria.<sup>39</sup>

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<sup>35</sup> *St. Mary's City Schools: Improved Test Scores, Engaged Students, Inspired Teachers, and Saved Money for the District, GoKnow! Case Study* (2009) available at [http://www.goknow.com/MediaExposure/vzw\\_case\\_study\\_stmarys08-09.pdf](http://www.goknow.com/MediaExposure/vzw_case_study_stmarys08-09.pdf) (last accessed Feb. 12, 2010).

<sup>36</sup> *Id.* at 2.

<sup>37</sup> *Id.* at 3.

<sup>38</sup> See, e.g., Education Week, *supra* note 33.

<sup>39</sup> See *AT&T to Deliver Mobile Student Response Solution, Enhancing Higher Education Classroom Experience*, AT&T Inc. Press Release (Aug. 26, 2008), available at <http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=26035&mapcode=> (last accessed Feb. 12, 2010). The application

Mobile devices are also spurring many new opportunities for scientific research, including obtaining and analyzing field data.<sup>40</sup> Verizon Wireless, for example, supports the *Chesapeake Bay FieldScope*, which allows students to upload their own field data regarding the Chesapeake Bay, including water quality measurements, field notes, and photos or other media. Students can then examine their data and see it in relation to data from peers and professional scientists.<sup>41</sup>

Finally, mobile services can also facilitate distance/remote learning. In 2005, Verizon Wireless supported the efforts of Kent State University's *Digital Videoconferencing Project* that was investigating the use of video cell phones to bring community resources into the classroom.<sup>42</sup> In addition, real-time text/chat programs (including those with image capabilities) and data messaging, as well as the polling and response programs and blogging activities discussed above, also can be used to teach across large distances.

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Combined, the efforts of players in the wireless ecosystem, content providers, educators, and other stakeholders appear to have a significant positive effect on children. In the *Harris Interactive Survey* discussed above, 18% of teens said they somewhat agreed or strongly agreed that the mobile phone has positively influenced their education.<sup>43</sup> Notwithstanding this success,

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operates over AT&T's 3G and EDGE networks and can work within a traditional classroom environment or remotely for distance learning. *Id.*

<sup>40</sup> Education Week, *supra* note 33.

<sup>41</sup> See Chesapeake Bay FieldScope, National Geographic, at <http://www.nationalgeographic.com/field/projects/cbfieldscope.html> (last accessed Feb. 12, 2010).

<sup>42</sup> See Thomas McNeal and Mark van't Hooft, *Anywhere, anytime: Using mobile phones for learning* (Winter 2006), available at <http://www.rcetj.org/index.php/rcetj/article/view/91> (last accessed Feb. 12, 2010).

<sup>43</sup> *Harris Interactive Survey* at 5.

more can be done – including actions by the Commission – to promote educational use of mobile devices.

**B. The FCC Should Encourage the Further Deployment and Adoption of Mobile Wireless Services for Educational Purposes**

It is not hard to imagine that one day soon mobile phones may replace students' traditional "bookbags." Indeed, today millions of school-age children never leave home for school without a hand-held mobile device. And while some parents insist on this for safety reasons, the versatility of mobile devices for recreation as well as communication ensures that few kids need to be convinced to carry one to and from school. Despite their popularity with students, however, the utility of mobile devices as part of the educational mission has not been widely appreciated, and school administrators occasionally bemoan their potentially distracting influences. Unfortunately, this perception overlooks the vast educational benefits of mobile devices discussed above.

Schools should recognize the positive role mobile devices can perform as part of the educational mission if used more widely and often during the school day, and the FCC can step forward to provide leadership and insight for educators looking to implement innovative learning tools in the classroom. CTIA agrees with Chairman Genachowski that "our public schools are far behind where they should be when it comes to having the ability to deliver educational content in an accessible digital form, to all students. Tens of millions of kids who need to study online at home simply can't, and their parents are shut off from the ability to participate with their kids and teachers in the educational effort."<sup>44</sup> Below, CTIA recommends six specific mLearning initiatives that the FCC should highlight as part of its continued efforts to ensure that

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<sup>44</sup> *Broadband: Our Enduring Engine for Prosperity and Opportunity*, Prepared Remarks of Chairman Julius Genachowski, FCC, NARUC Conference Washington, D.C., 5 (February 16, 2010) ("Genachowski NARUC Remarks").

parents, teachers, and children take advantage of the learning opportunities provided by mobile devices.

### **1. Updated Technology Policies**

For 60 years, starting with language labs, slide projectors, and film strips and graduating to closed-circuit television, VCRs, DVDs, and classroom computers, education and technology have been inseparable.<sup>45</sup> Many colleges today expect all students to have a wireless-enabled laptop computer, and secondary schools in the United States and abroad are increasingly mandating in-class netbooks or laptops.<sup>46</sup> The educational community, which has paired technology with learning for decades, needs to be encouraged to think anew about how to incorporate mobile technology into the curriculum. Specifically, schools should review and update their existing technology policies to integrate mobile technologies and educational applications. They should analyze whether the existing policies provide resources that match the personalized, one-to-one services offered on student-owned mobile devices.

This engagement with mobile technology is particularly warranted in areas where mobile devices can provide broadband connections that are not otherwise available to students. Unless all students have a wireless laptop, only a few students at a time will be able to access resources on the Internet in the classroom or school library. But if students can use mobile devices to conduct Internet research, the number of participants for a classroom exercise may be multiplied many times over.

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<sup>45</sup> There is a significant amount of literature about the relationship of learning to technology. See, e.g., Clayton Christensen, Curtus W. Johnson, and Michael B. Horn, *Disrupting Class: How Disruptive Innovation Will Change the Way the World Learns* (2008); Claudia Goldin, Lawrence F. Katz, *The Race Between Education and Technology* (2008).

<sup>46</sup> For example, Kalani High School In Honolulu, HI requires laptops for its students. See *Kalani underclassmen relish their new laptops*, Honolulu Star Bulletin (Oct. 5, 2009), available at [http://www.starbulletin.com/news/20091005\\_kalani\\_underclassmen\\_relish\\_their\\_new\\_laptops.html](http://www.starbulletin.com/news/20091005_kalani_underclassmen_relish_their_new_laptops.html) (last accessed Feb. 12, 2010).

## 2. Custom Mobile Content and Download Policies

As mentioned above, the vast majority of mobile devices sold today are capable of accessing the Internet, and there are numerous ways in which streaming or downloadable materials can be used to enhance learning. One website alone lists 101 uses for handheld devices in education.<sup>47</sup> The FCC should encourage schools to use mobile devices as an additional platform for communicating with students, including by distributing assignments and other content directly to the devices.

There are a number of advantages to using mobile devices to deliver assignments. First, they can be delivered at any time, allowing a teacher to tailor a homework assignment to the material covered in class and e-mail it to students' devices before the end of the school day. Teachers have been sending students home for decades with math, vocabulary, and spelling assignments that may include fill-in-the-blank, matching, or one-word-answer problems, and these kinds of assignments work well on the small screens of mobile devices.<sup>48</sup> Delivering assignments to handheld devices electronically also has a number of important cost and environmental advantages over ditto-masters and photocopied assignments.<sup>49</sup>

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<sup>47</sup> See 101 Uses, K12 Handhelds, at <http://k12handhelds.com/101list.php> (last accessed Feb. 12, 2010). In addition, the Center for Innovative Learning Technologies, sponsored by the National Science Foundation, tracks handheld learning devices. See <http://cilt.org/themes/ubiquitous.html> (last accessed Feb. 12, 2010). Another group, the Concord Consortium, is a nonprofit educational research and development organization based in Concord, Massachusetts. See <http://www.concord.org/> (last accessed Feb. 12, 2010).

<sup>48</sup> Electronic delivery to mobile devices also permits students to send in the assignment before returning to school the next day, allowing the teacher to grade (and print out, as necessary) the assignments before the next day's class. What has been a 48-hour or longer feedback interval between the creation of a homework assignment and returning the assignment to the student can be done in less than 24 hours with mobile devices. And teachers (hopefully) would never have to face the "dog ate my homework" explanation.

<sup>49</sup> For an example of PDA-styled exercises, see [http://k12handhelds.com/writing\\_toolkit\\_samples.php](http://k12handhelds.com/writing_toolkit_samples.php) (last accessed Feb. 12, 2010).

Working with the U.S. Department of Education (including as part of that agency's efforts to develop a National Educational Technology Plan),<sup>50</sup> the Commission also can foster greater adoption by promoting download policies that allow a host of school-related material to be taken with students on the go. A distinct advantage of mobile devices is that schoolwork can be done while students are traveling on the bus or in the car to or from school. Approximately 26,000,000 students ride the bus to school with an average of 10 miles roundtrip per day.<sup>51</sup> At 20 miles per hour on average for the bus, an average ride home would be 15-20 minutes (for some students, the trip home may take an hour or more). Although it is unreasonable to expect all students to use the ride home as a study hall, some students naturally may try to get some homework done during the ride.<sup>52</sup> Whereas completing written work on a bus is nearly impossible, completing assignments on hand-held devices is entirely feasible. And the potential study gains are staggering—if only 5% of bus-riding students used the riding time for school assignments, it could produce 2.16 million hours of productive study time per week (1.3 million x 20 minutes x 5 school days per week).

### **3. Audio Recordings and Videocasts for Students**

Missing school because of illness for more than a day or two generally involves a variety of alternatives, none of them entirely satisfactory. For example, parents can visit the school to pick up assignments or review with the teacher what needs to be covered, but working parents might not be available to meet with the teachers. Communicating with other students in the class

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<sup>50</sup> See National Educational Technology Plan, *available at* <https://edtechfuture.org/> (last accessed Feb. 12, 2010).

<sup>51</sup> See National School Bus Fuel Data, American School Bus Council, *at* <http://www.americanschoolbuscouncil.org/index.php?page=fuel-calculator> (last accessed Feb. 12, 2010).

<sup>52</sup> See "Mobile Broadband: A 21st Century Plan for U.S. Competitiveness, Innovation and Job Creation," Remarks of Chairman Julius Genachowski at 3 (Feb. 24, 2010).

is another option, although this approach may not be fully reliable. But actually hearing or viewing the class from a sick child's bedroom has thus far generally not been feasible.

Using mobile technology, one or more sick students can call in to a classroom and participate in real time. The teacher can wear a microphone attached to a mobile phone that is part of the conference call.<sup>53</sup> As another option, the teacher's lecture or classroom discussion can be recorded, posted as a "podcast" or similar downloadable file, and played by the home-bound student on a mobile device that has downloaded the podcast. Alternatively, a classroom equipped with a video camera (increasingly offered as part of a cell phone) can provide a live or podcast version of the class for viewing by a student at home. And the sick student can watch or listen in bed, via a mobile device.

The recent H1N1 swine flu outbreak caused many schools to shut down for a week or more, and many students who actually got sick were out of school for many days due to the pandemic. In these circumstances, the use of mobile phone devices (which do not require a classroom to be otherwise networked) can be a bridge to students who need to remain away from the school. While not perfect, these substitutes for in-class attendance provide far more coverage than "catching up" based on teacher assignments, and the FCC should encourage their use.

Although these arrangements are not yet routine, they involve equipment that is readily available and likely in schools. As schools and home-bound ill students become more used to employing mobile devices, podcasts, video cameras, and the Internet generally to make up for necessary absences, techniques for using the technology will improve. And communities can cushion the effects of pandemics, weather-related absences, and other unavoidable causes of

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<sup>53</sup> Conference call technology in the classroom is decades-old. Gene W. Murdock & Joseph A. Bellizzi, *Teaching Marketing With Telecommunications: Conference Calls Bring Corporate Executives Into the Classroom*, *Journal Of Marketing Education*, Vol. 3, No. 1, 42-45 (1981).

school absence on student development. Students no longer need to “lose a year” because of extended absences from the classroom due to illnesses if schools, parents, and children work to use the full potential of mobile technology and the Internet.

#### **4. Mobile Device “Voting” and Response**

As discussed above, another innovative use of mobile devices in the classroom is for real-time polling and other group exercises. School-age children are well-known participants in mobile voting where entertainment is involved—consider the millions of votes cast for contestants on “American Idol.” The same engagement can be brought to the classroom with the same devices and off-the-shelf technology, but in this case to encourage education-oriented voting and responses. Whether by texting or through Internet-based materials, teachers can ask for responses from the entire class and get immediate feedback about whether students understand the material. Such polling can also offer students anonymity with their answers, thereby increasing participation by those who do not like to raise their hands in class or are embarrassed to divulge their uncertainty about the material under review.<sup>54</sup>

#### **5. Mobile Library Access**

The looming mobile revolution in learning and technology extends to the school library, often the centerpiece of school technology policies and the first location to be networked for broadband services. One financial and managerial challenge for school and public libraries has been selecting which books to order in hard copy. Easing this burden, lists of school district book holdings are often put online, and a library can locate copies of books anywhere within its

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<sup>54</sup> As one Australian case study found, “the SMS function allowed for almost immediate affirmation of success or for a call for help from a supportive peer.” Ferry, B., *Using Mobile Phones to Augment Teacher Learning In Environmental Education*, Hello! Where Are You in the Landscape of Educational Technology? Proceedings ascilite Melbourne (2008), available at <http://www.ascilite.org.au/conferences/melbourne08/procs/ferry-poster.pdf> (last accessed Feb. 12, 2010).

system and request that the book be sent to the school through transfer systems. But today, if the appropriate license could be obtained, it may be cheaper (and certainly faster) to download a copy of a book or periodical than to ship it from another school library. Many books already can be downloaded for free under a commons license or for a fee from publishers, and students will increasingly want digital copies of books for e-readers and other mobile devices.<sup>55</sup>

The FCC, in cooperation with other federal and state agencies, should encourage librarians and teachers to think in fresh ways about handheld devices as alternative content delivery devices and as a means for expanding the reach of the school library beyond its four walls and achieving universal digital literacy. For example, to the extent they have not already done so, schools should enable students to view library holdings online via mobile devices. Instead of being a disruptive tool in the library, therefore, mobile devices can be part of the arsenal of research tools librarians and teachers enlist in the learning process.

## **6. Modifications to the E-Rate and Lifeline/Link Up Programs**

Some of the ideas described in these Comments, and others to be developed by the educational technology community in the future, will require additional funding to implement. One possible source of such funding is the Schools and Libraries Program of the Universal Service Fund (known as the “E-Rate” Program), administered by the Universal Service Administrative Company (“USAC”) under the FCC’s direction.<sup>56</sup>

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<sup>55</sup> Useful apps have also been developed for downloading books and other print materials to mobile devices. In addition to its Kindle e-reader offering, Amazon.com has developed a Kindle app for downloading books to iPhone and iTouch users. And Safari Books Online provides searchable, online access to thousands of technology, design, and business books, prepublication manuscripts, short documents, articles and training videos. *See* <http://my.safaribooksonline.com/> (last accessed Feb. 12, 2010).

<sup>56</sup> The E-Rate Program supports connectivity (the conduit or pipeline for communications using telecommunications services or the Internet), which includes telecommunications services, Internet access, internal connections, and the basic maintenance of internal connections. Discounts for support depend on the level of poverty and the urban/rural status of the population served, and they range from 20% to 90% of the costs of eligible services. Eligible schools, school districts, and libraries may apply individually or as part of a consortium.

The FCC should ensure that grants under the E-Rate program seek to maximize opportunities for wireless and mobile applications that otherwise fit within the scope of the program.<sup>57</sup> In an era where more and more teachers and students are obtaining Internet access through wireless cards on laptops or through mobile devices (instead of through wired connections), it no longer makes sense to fund wired services to individual classrooms under the E-Rate Program while overlooking wireless infrastructure. A wireless installation, moreover, can obviate the need for individual wired broadband connections while at the same time allowing multiple users to access the Internet at the same time. The E-Rate Program should be modernized to reflect these usage trends.<sup>58</sup>

In addition to modifying the E-Rate Program, the Commission should also consider enhancing the Lifeline and Link-Up Programs to focus more on mobile broadband deployment and adoption.<sup>59</sup> The programs today are designed to subsidize the installation and maintenance of dial-tone voice service. With mobile broadband services, voice calling is but one of many applications that a consumer can use.

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<sup>57</sup> For example, USAC's Frequently Asked Questions regarding Wide Area Networks focuses on the issue of whether leased or purchased wireline networks are covered – with no discussion of whether a Wi-Fi or 4G network would be considered. *See* Step 6: Wide Area Network (WAN) Fact Sheet, USAC, *at* <http://www.usac.org/sl/applicants/step06/wide-area-network-fact-sheet.aspx> (last accessed Feb. 12, 2010).

<sup>58</sup> CTIA has previously advocated for the streamlining of the schools and libraries application process in a manner that would encourage applicants to seek out the most efficient technologies available, which may be wireless. *See* CTIA Comments, WC Docket No. 05-195 (filed Oct. 18, 2005) (“[I]t no longer makes sense for policy-makers to support the maintenance of backward-looking, wireline-centric universal service mechanisms. In this environment of constant technological change, the current schools and libraries mechanism, which limits support to a list of supported services that can never, as a practical matter, be updated concurrent with changes in technology, runs the risk of forever condemning schools and libraries to more costly, last generation technologies.”).

<sup>59</sup> *See, e.g.*, Letter to Acting Chairman Michael Copps from CTIA and other associations and carriers, CC Docket No. 96-45 (filed April 23, 2009) (expressing support for “providing America’s low-income consumers access to broadband through universal service Lifeline and Link Up programs”).

**C. Educational Content is Widely Available on Mobile Wireless Devices, and Marketplace Incentives are Sufficient to Ensure Continued Growth in this Area**

The preceding sections detail the wide variety of initiatives, both public and private, that the FCC can highlight to harness the full potential of mobile wireless services to advance K-12 and higher education. A vigorous, thriving wireless market exists, with fierce competition to meet the demand for educational content on mobile wireless devices. As detailed above, the upsurge in mobile device applications has included education-focused apps, thousands of which are targeted toward children, and many of which are free.<sup>60</sup> In addition, barriers to entry into the applications marketplace remain low; in fact, students themselves have created some of the most popular applications.<sup>61</sup> Thus, instead of imposing new regulatory mandates, the Commission should publicize initiatives that have demonstrated promise, including those identified above, and encourage schools and providers to consider these efforts in their own communities, thereby encouraging the further development of mLearning tools.

Given the Commission's recent success with dozens of roundtable and workshop efforts convened in the formulation of the National Broadband Plan, the FCC (in conjunction with educational and industry groups) can use a similar approach to provide updates, discuss developments and publicize success stories in this context. Further, the FCC can expand its website presence and outreach to interested parents and school administrators and provide up-to-date, reliable, and useful information otherwise not provided on the Internet; it can also direct readers to those sources.

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<sup>60</sup> For example, Mobile Rated.com is one of many websites listing free educational application downloads. *See* [www.mobilerated.com](http://www.mobilerated.com) (last accessed Feb. 12, 2010).

<sup>61</sup> For instance, Ford worked with six computer science students at the University of Michigan to build two mobile phone-based applications for its in-car Sync music product. *Ford goes open source, gets students to develop phone apps for Sync*, [autoblog.com](http://www.autoblog.com/2009/12/22/ford-goes-open-source-gets-students-to-develop-phone-apps-for-s/) (Dec. 22, 2009), available at <http://www.autoblog.com/2009/12/22/ford-goes-open-source-gets-students-to-develop-phone-apps-for-s/> (last accessed Feb. 12, 2010).

These informational and educational activities are likely to be far more effective than any new regulatory initiatives aimed at providers of mobile wireless devices or network services. In each segment of the mobile wireless ecosystem, from wireless carriers to infrastructure suppliers to device manufacturers to operating system providers to applications developers, there is vigorous and sustained competition.<sup>62</sup> The explosion in the creation and adoption of thousands of mobile applications, including those designed for education, demonstrates why the FCC should not entertain a regulatory solution here—Federal communications policy disfavors regulation when competition is thriving.

Perhaps the biggest issue facing the mLearning market is not a competitive one but an informational one: how can schools, students, and parents learn about the best and most useful applications? As discussed below, the wireless industry has made substantial efforts to provide parents with critical tools to help protect the safety of children and to educate parents and children about wireless media safety.<sup>63</sup> Working with the U.S. Department of Education and other federal and state educational agencies, the FCC can play its most useful role in helping parents, educators, students, and other government bodies understand how this market is developing—what’s working and how to sort through the maze of innovation in the K-12 application space (avoiding any official endorsement of one product over another). But these efforts do not require new rulemakings on how to regulate any sector of the mobile wireless

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<sup>62</sup> See, e.g., CTIA Ex Parte Communication, WT Docket No. 09-66, GN Docket No. 09-157, GN Docket No. 09-51 (filed Feb. 12, 2010) CTIA Comments, WT Docket No. 09-66 (filed Sept. 30, 2009), *available at* [http://files.ctia.org/pdf/filings/090930\\_CTIA\\_Wireless\\_Competition\\_NOI\\_Comments\\_Combined\\_FINAL.pdf](http://files.ctia.org/pdf/filings/090930_CTIA_Wireless_Competition_NOI_Comments_Combined_FINAL.pdf) (“CTIA Competition Comments”); CTIA Reply Comments, WT Docket No. 09-66 (filed Oct. 22, 2009), *available at* [http://files.ctia.org/pdf/filings/091022\\_CTIA\\_Wireless\\_Competition\\_NOI\\_Reply\\_Comments\\_FINAL.pdf](http://files.ctia.org/pdf/filings/091022_CTIA_Wireless_Competition_NOI_Reply_Comments_FINAL.pdf) (“CTIA Competition Reply Comments”).

<sup>63</sup> Word-of-mouth, Internet review sites, and organizations geared to sorting through applications also help spread the word about the latest tools and applications. *Six Great iPhone Apps Flying Under the Radar*, CIO.com (Feb. 8, 2010), *available at* [http://www.cio.com/article/534214/Six\\_Great\\_iPhone\\_Apps\\_Flying\\_Under\\_the\\_Radar](http://www.cio.com/article/534214/Six_Great_iPhone_Apps_Flying_Under_the_Radar) (last accessed Feb. 12, 2010).

ecosystem, which may have the unintended consequence of harming the robust investment and innovation that marks the industry. The stampede of successful downloads of educational applications to mobile devices happening every day is proof enough that the market here needs no regulatory intervention.

**D. Mobile Wireless Services Also Offer an Array of Communications, Safety, Health, Accessibility, Civic Participation, and Skills Development Benefits for Children**

In addition to education and other benefits, mobile wireless services also offer unique communications, safety, health, accessibility, civic participation, and skills development benefits for children.

**1. Communications**

CTIA agrees with the Commission's statement in the *NOI* that new forms of media, including mobile devices, "have opened up new ways of communicating with peers and family. Cell phones, text messaging, and social networking sites, for example, have become important means by which many youths communicate with peers and parents."<sup>64</sup> As discussed in greater detail in Section II, above, children view the many features available on mobile devices as critical to meeting their communications needs.

In addition, children are increasingly using mobile devices for photo and video sharing, Internet access, apps, and for other data services. Through social networking sites, blogs, and other outlets, children also have more opportunities for content creation and distribution than ever before. Thus, whether through voice calls; text, photo, or video messages; mobile social networking activities; or other forms of mobile communication, children have more options than ever for staying in touch with family and friends while on the go.

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<sup>64</sup> *NOI* ¶ 20.

## 2. Safety

In many families, mobile devices are an essential tool for keeping children safe. For example, mobile phones and other devices provide children with ready connectivity not only to family members, but also to emergency and public safety services (e.g., E-911 and other voice services). Moreover, by using mobile broadband Internet access and various apps, children can access detailed information about emergency and public safety services.<sup>65</sup> It is not surprising then, that in the *Harris Interactive Survey*, 78% of teens responded that mobile phones make them feel safe while on the go.<sup>66</sup>

Schools also are beginning to embrace the safety benefits of mobile devices. In one Illinois high school, the principal gave his mobile number to the entire student body and asked students to save the number in their phones and alert him about any safety concerns at the school via a text message.<sup>67</sup> Within a month, the principal had received several safety tips that the administration then investigated.<sup>68</sup>

Mobile phones are also being used to improve campus safety. As one example, T-Mobile, Sprint Nextel, and others have partnered with Rave Wireless to transform students' mobile phones into personal safety devices.<sup>69</sup> The phone-accessed applications can be armed,

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<sup>65</sup> Apps and Internet access also provide children with detailed, dynamic maps and related location information.

<sup>66</sup> *Harris Interactive Survey* at 8.

<sup>67</sup> See *Have a problem? Jacobs High chief says txt ur skul principal*, Daily Herald (Oct. 27, 2009), available at <http://www.dailyherald.com/story/?id=332034&src=5> (last accessed Feb. 12, 2010); *Connecting with a new generation*, Daily Herald (Nov. 2, 2009), available at <http://www.dailyherald.com/story/?id=333080&src=> (last accessed Feb. 12, 2010).

<sup>68</sup> *Id.*

<sup>69</sup> See, e.g., *Sprint and Rave Wireless Once Again Partner to Make Campuses More Secure*, Sprint Nextel Press Release (May 7, 2007), available at [http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle\\_Print&ID=996420&highlight=](http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle_Print&ID=996420&highlight=) (last accessed Feb. 12, 2010); see also *Expanded Mobile Messenger Partnership*, Rave Mobile Safety Press Release (Dec. 7, 2009), available at <http://www.ravemobilesafety.com/news/12/07/2009> (last accessed Feb. 12, 2010); *Rave Wireless Enhances Campus*

and when triggered, automatically send the user's location, picture, mobile number, and personal information to campus police.<sup>70</sup> Rave Wireless's Rave Guardian service also allows students to set "precautionary timers" when walking alone or at night.<sup>71</sup> Although these services have been deployed on college campuses, similar safety-enhancing services can be adapted for younger children and teens.

### 3. Health

Numerous mobile health services and applications ("mHealth") that can benefit children have developed in the last few years. According to one recent study, "[i]n addition to electronic health records and health information exchanges, innovators are employing online benefit enrollment programs and integrated eligibility systems; remote monitoring technologies and telehealth services; personal health records; technology-supported translation services; automated previsit questionnaires; and chronic care support and self-management tools through mobile technologies, social media, and gaming technologies."<sup>72</sup> As a result, today children and parents can use mobile devices to access scores of health care information on the Internet and through various mHealth apps.

Children can use mobile devices to improve their physical well-being. For example, there are many downloadable fitness apps available to encourage children to exercise more and

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*Safety Solution Using T-Mobile's Nationwide Network*, Rave Mobile Safety Press Release (Oct. 30, 2008), available at <http://www.ravewireless.com/news/10/30/2008> (last accessed Feb. 12, 2010).

<sup>70</sup> See *id.*; see also *Brown Launches Rave Guardian*, Rave Mobile Safety Press Release (Nov. 23, 2009), available at <http://www.ravemobilesafety.com/news/11/23/2009> (last accessed Feb. 12, 2010).

<sup>71</sup> Using the service, students can commence a timer by informing campus police of their current locations and the amount of time they expect to take to get their destinations. Campus police then will check to see whether the students are safe if the students do not disable the timer within a set timeframe.

<sup>72</sup> See *Technology-Enabled Innovations for Improving Children's Health, A Joint Research and Policy Initiative of The Children's Partnership and The Public Health Institute/Health Technology*, 3 (Aug. 2009), available at [http://www.childrenspartnership.org/Content/NavigationMenu/Programs/EHealthAgendaforChildren/TechnologyEnabledInnovations/Technology\\_Enabled\\_I.htm](http://www.childrenspartnership.org/Content/NavigationMenu/Programs/EHealthAgendaforChildren/TechnologyEnabledInnovations/Technology_Enabled_I.htm) (last accessed Feb. 12, 2010) ("*Improving Children's Health Study*"); see also NOI ¶ 21.

learn specific maneuvers, and to track their progress. The “RunKeeper” app, for example, logs the distance of a run using GPS technology and then provides the user with statistics on time, pace/speed, advances over time, and other statistics.<sup>73</sup> There are also apps focused on nutrition, including the “GoodFoodNearYou” app, which uses GPS technology to find nearby healthy food options.<sup>74</sup> Parents also can use mobile devices (including non-smartphones) to promote their children’s health. The free “text4baby” text messaging service (CTIA-The Wireless Foundation was a founding partner) provides pregnant women and new parents with information about a variety maternal and child health topics, including “immunization, nutrition, seasonal flu, prenatal care, emotional well being, drugs and alcohol, labor and delivery, smoking cessation, breastfeeding, mental health, birth defects prevention, oral health, car seat safety, exercise and fitness, developmental milestones, safe sleep, family violence, and more.”<sup>75</sup>

mHealth technologies are available to assist children with chronic diseases. For example, WellDoc Inc. has an application that turns any web-enabled phone into an interactive diabetes monitoring and management device.<sup>76</sup> In addition, the MedMinder Systems’ wireless-enabled pillbox has been deployed in a pilot program by Harvard Pilgrim Health Care.<sup>77</sup> The wireless pillbox “lights up, sounds alarms, places phone calls and even emails users for alerts and

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<sup>73</sup> Children without smartphones can also log their progress using various notepad programs and timer functions available on most mobile devices.

<sup>74</sup> In addition to the app, [www.goodfoodnearyou.com](http://www.goodfoodnearyou.com) also provides this information to web-enabled mobile devices.

<sup>75</sup> See User FAQs, text4baby, at <http://www.text4baby.org/faqs.html> (last accessed Feb. 18, 2010). Text4baby’s telecom partners include Alltel, Assurance Wireless, AT&T, Boost Mobile, Cellular South, Cellcom, Centennial Cellular, Cincinnati Bell, Metro PCS, nTelos, Sprint Nextel, T-Mobile USA, U.S. Cellular, Verizon Wireless and Virgin Mobile USA.

<sup>76</sup> See WellDoc, available at <http://www.welldocinc.com/> (last accessed Feb. 12, 2010).

<sup>77</sup> See *Harvard Pilgrim to pilot wireless pillbox for CKD patients*, Mobihealthnews (Aug. 31, 2009), available at <http://mobihealthnews.com/4153/harvard-pilgrim-to-pilot-wireless-pillbox-for-ckd-patients/> (last accessed Feb. 12, 2010).

notifications” regarding their medication regime.<sup>78</sup> Yet another innovation has transformed an iPhone into a combined glucose meter and insulin pump, with a storage container for strips.<sup>79</sup>

Combined, these technologies exemplify the widespread innovation occurring in mHealth, and this admirable trend is bound to continue. The *Improving Children’s Health Study* recently forecast that mobile technology would become “ubiquitous and affordable” in providing healthcare support and would increasingly be used to “enhance care delivery, provide disease management services, and access patient information.”<sup>80</sup> According to the study’s forecasts, within 2-5 years, an increasing number of health services would be delivered primarily via mobile devices.<sup>81</sup> Within the same period, the availability of self-management technologies to manage chronic conditions and the use of mobile devices to “remind, monitor, and provide feedback for chronic disease management” are expected to become widespread for children, adolescents, and parents.<sup>82</sup>

#### **4. Accessibility**

Mobile technologies are enabling children with disabilities, including those with hearing, visual, physical or cognitive impairments, to more fully participate in everyday childhood experiences such as education, social interaction and entertainment. Wireless devices may include built-in features for consumers with diverse abilities including text-to-speech, voice activation, closed captioning, text and instant messaging applications, predictive text, word

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<sup>78</sup> *Id.*

<sup>79</sup> See Announcing Our Winners: The 2009 DiabetesMine™ Design Challenge, Diabetesmine (May 18, 2009), available at <http://www.diabetesmine.com/2009/05/announcing-our-winners-the-2009-diabetesmine-design-challenge.html> (last accessed Feb. 22, 2010) (announcing the LifeCase & LifeApp System). By eliminating the need for diabetics to carry several devices, it increases the likelihood of regular monitoring.

<sup>80</sup> See, e.g., *Improving Children’s Health Study*, Forecast Points at 1, 5.

<sup>81</sup> *Id.*

<sup>82</sup> *Id.* at 4.

completion and spell check, and customizable font and user interface features,<sup>83</sup> In addition to the available built-in features, mobile devices are also compatible with third-party assistive technology solutions that include hardware, such as alternate entry devices, TTYs, and adaptive keyboards and software such as screen readers, magnifiers, translators, and text-to-speech and speech-to-text engines.<sup>84</sup> As compared to expensive and immobile assistive or medical technology for persons with disabilities, mobile devices offer more affordable and mainstream accessibility solutions for many parents and children which have long been desired by the accessibility community.

With the increased ability of children and parents to access the Internet while on the go, mobile applications dedicated to improving accessibility on mobile devices and in everyday use are proliferating. For example, AssistiveWare's "Proloquo2Go" app, available through the iTunes App Store, offers a full-featured communications solution through natural sounding text-to-speech voices, symbols, automatic conjugations, and a default vocabulary for people who have difficulty speaking.<sup>85</sup> And Purple Communications, Inc.'s "i711 Wireless," available through App World for BlackBerry® smartphones, offers a wireless Internet-based relay communications service allowing deaf and hard-of-hearing individuals to communicate with hearing individuals.<sup>86</sup> In addition, "Voice4u" is an app designed to break down communications

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<sup>83</sup> These listed features have been generalized to demonstrate the range of accessible features available on various mobile devices and handsets, and not all features are available on all devices. *See* Comments of CTIA-The Wireless Association®, Broadband Accessibility for People with Disabilities Workshop II: Barriers, Opportunities and Policy Recommendations, GN Docket Nos. 09-47, 09-51, 09-137 (filed Oct. 6, 2009). *See also* Douglas Soltys, *Inside the Blackberry Accessibility Team*, Inside Blackberry: The Official Blackberry Blog (Dec. 23, 2009) <http://blogs.blackberry.com/2009/12/inside-the-blackberry-accessibility-team/> (last accessed Feb. 22, 2010).

<sup>84</sup> Comments of CTIA-The Wireless Association®, Broadband Accessibility for People with Disabilities Workshop II: Barriers, Opportunities and Policy Recommendations, GN Docket Nos. 09-47, 09-51, 09-137 (filed Oct. 6, 2009).

<sup>85</sup> *See* AssistiveWare, Proloquo2Go™, at <http://www.proloquo2go.com/> (last accessed Feb. 12, 2010).

<sup>86</sup> *See* Purple Communications, Inc., i711 Wireless, at <http://appworld.blackberry.com/webstore/content/3394> (last accessed Feb.12, 2010).

barriers for autistic children.<sup>87</sup> The app includes more than 125 pre-loaded icons with accompanying sounds (and users can add more icons and sounds) that express emotions, activities, places, things, etc. when touched, and the app is a fraction of the cost of stand-alone devices that perform the same function.<sup>88</sup>

## 5. Civic Participation and Skills Development

Mobile devices offer children access to a range of civic information and current events, including through broadband Internet access and diverse apps. Children today can quickly find and read founding documents, information about the branches of government, and any number of essays and books about historical people and issues. As discussed above, mobile devices provide access to a plethora of general news and information sources that not only educate children, but also help them develop critical thinking and analytical skills. Political parties, moreover, have embraced mobile technology. In 2008, the Obama presidential campaign made substantial use of mobile apps and text messaging (including announcing Obama's Vice-Presidential pick via text message). Today, both parties use these technologies, as well as mobile social networking tools (including Facebook and Twitter) to distribute their messages and organize supporters. Thus, if a child wants to learn more about a particular issue or look for differing viewpoints, mobile devices bring the information to their fingertips.

Mobile devices help children develop valuable skills that prepare them for the job market as adults. As the Commission states in the *NOI*, “[c]hildren with digital media skills are . . . likely to be better positioned to compete in today’s workplace. As a greater number of workplaces incorporate computers and the Internet into everyday work activities, the ability of

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<sup>87</sup> See, e.g., *Apps as Parenting Tools*, WSJ Blogs (Dec. 28, 2009), at [http://blogs.wsj.com/digits/2009/12/28/app-watch-apps-as-parenting-tools/?blog\\_id=100&post\\_id=9672](http://blogs.wsj.com/digits/2009/12/28/app-watch-apps-as-parenting-tools/?blog_id=100&post_id=9672) (last accessed Feb. 12, 2010).

<sup>88</sup> *Id.*

young people to use these tools becomes critical to ensuring the availability of job opportunities.”<sup>89</sup> And as Chairman Genachowski stated recently, “broadband can power training of workers with new skills that can increase employability in a digital economy.”<sup>90</sup>

Having computing skills may no longer be enough to compete for many jobs, however. As more services and jobs “go mobile,” employers will place a greater emphasis on mobile experience and on-the-go communications skills. Chairman Genachowski recognized this trend, stating that “[b]roadband creates jobs and economic growth . . . think of the jobs around the hundreds of thousands of smart phone applications.”<sup>91</sup> For example, companies that once only had a brick-and-mortar presence and then added an online website are now strategizing how best to take part in the mobile wireless ecosystem. Employees similarly will need to be prepared not only to address the demands of “old economy” and online business channels, but also the looming challenges of mCommerce. Thus, through the use of mobile devices and various social networking, texting, e-mailing, and content creation activities, today’s children are developing the skills needed to compete in tomorrow’s job market.

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<sup>89</sup> *NOI* ¶ 19, citing Wendy Lazarus, Andrew Wainer, and Laurie Lipper, *Measuring Digital Opportunity for America’s Children: Where We Stand and Where We Go From Here*, The Children’s Partnership, 6 (June 2005), available at <http://www.childrenspartnership.org/AM/Template.cfm?Section=Technology&Template=/CM/HTMLDisplay.cfm&ContentID=7087> (last accessed Feb. 12, 2010) and *Digital Culture Prepares Young Minds*, eMarketer Digital Intelligence (Mar. 21, 2006), available at <http://www.emarketer.com/Article.aspx?1003881> (last accessed Feb. 12, 2010).

<sup>90</sup> Genachowski NARUC Remarks at 3.

<sup>91</sup> *Id.*

#### **IV. THE WIRELESS INDUSTRY WILL CONTINUE ITS PROACTIVE EFFORTS TO EMPOWER PARENTS TO PROTECT CHILDREN FROM INAPPROPRIATE CONTENT AND ENCOURAGE RESPONSIBLE USE**

As part of the *NOI*, the FCC seeks comment on the risks that the evolving electronic media landscape presents for children, whether parents, teachers, and children are aware of these risks, and what can be done to protect children from them.<sup>92</sup> As described in more detail below, the wireless industry has worked actively to empower parents with choice and control over mobile wireless content so that they may determine what is appropriate for their children. Carriers, moreover, have competed vigorously with one another to meet the demands of parents for these tools and have introduced a series of initiatives to educate parents and children about the responsibilities and risks of mobile connectivity. In the “open” mobile wireless ecosystem, however, children are increasingly exposed to the same risks faced across other technological platforms.

In response to consumer and governmental demand for open access, open devices, and greater broadband connectivity on handsets, carriers have moved away from “walled garden” approaches which offered consumers service provider-reviewed services and protected consumers, including children, from harmful content and online activities. Today, wireless carriers have little control over content consumers may access on their networks in the “open” mobile wireless ecosystem. Instead, numerous entities in the wireless ecosystem create, distribute, and manage content that can be accessed by consumers, specifically children. As a result, children may be exposed to much of the same content that is available on the open Internet including violent, offensive and adult-themed content, personalized advertising, privacy risks and the plethora of mobile applications which are not intended for use by children. In

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<sup>92</sup> *NOI* ¶ 28.

addition, the technological advancements praised in the previous sections which have opened doors for positive educational and social interactions have also presented the opportunities for children to engage in irresponsible or inappropriate behavior on mobile devices and services such as texting while driving, sexting and cyberbullying.

CTIA understands that protecting children in these online and mobile environments is a challenging task for the industry, government and – especially – parents. Despite these challenges, the wireless industry continues to respond with effective, innovative solutions to empower parents with choice and control over the mobile content and services their children increasingly utilize. Given the industry’s ongoing commitment, the FCC can and should encourage stakeholders to help educate parents and children regarding safe, responsible mobile device practices that will achieve more than any proscriptive regulatory regime intended to protect children.

**A. The Wireless Industry Has Proactively Developed Best Practices to Empower Parents and Protect Children**

The wireless industry has taken proactive steps to develop best practices to protect consumers and empower parents since the beginning of interactive wireless content distribution.

**1. CTIA Initiatives and Other Industry-Wide Efforts**

CTIA plays a key role in facilitating industry discussions about mobile safety and responsible use. CTIA provides the framework for industry efforts to protect consumers and provide parents with choice and control over mobile content. Commencing in 2004, CTIA began developing what is now the *Guidelines for Carrier Content Classification and Internet Access* to provide consumers with additional information and tools to make informed choices when

accessing wireless content.<sup>93</sup> Under these voluntary guidelines, participating carriers agree to develop content classification standards and educate consumers about the meaning of the chosen categories and ratings.

The guidelines distinguish between “Carrier Content” and content available from other sources.<sup>94</sup> The guidelines for Carrier Content cover materials that are available through a carrier’s managed content portal as well as third-party materials for which customers may be billed directly by their wireless carrier. These materials are divided into “Generally Accessible Carrier Content,” which is available to all consumers, and “Restricted Carrier Content,” which is not available to wireless users under 18 years of age without specific parental authorization.<sup>95</sup> Each carrier is responsible for its own implementation of access controls, including age-verification mechanisms that effectively limit access to material tagged as “Restricted Carrier Content.”<sup>96</sup> In addition, CTIA’s voluntary Internet Access Control Guidelines direct participating carriers to provide consumers with filters or other tools designed to restrict access to publicly available Internet content (including content that the wireless provider is neither

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<sup>93</sup> Wireless Content Guidelines, CTIA Consumer Info, at [http://www.ctia.org/consumer\\_info/service/index.cfm/AID/10394](http://www.ctia.org/consumer_info/service/index.cfm/AID/10394) (last accessed Feb. 12, 2010) (“*Guidelines for Carrier Content Classification and Internet Access*”).

<sup>94</sup> *Id.*

<sup>95</sup> *Id.*; see also Wireless Content Guidelines Classification Criteria, CTIA Consumer Info, at [http://www.ctia.org/consumer\\_info/service/index.cfm/AID/10395](http://www.ctia.org/consumer_info/service/index.cfm/AID/10395) (last accessed Feb. 12, 2010). “Restricted Carrier Content” consists of material that is generally recognized as appropriate only for adults 18 years of age or older, such as material that may contain strong violence or may be sexually explicit; or material that is legally restricted to persons at least 18 years of age, such as lotteries and gambling. CTIA suggests to participating members and content providers that other types of content be placed in this restricted category as well, including material that may be deemed objectionable or harmful to minors based on its depiction of illegal drug use or its use of intense profanity or hate speech.

<sup>96</sup> Participating wireless carriers also pledge not to make any such “Restricted Carrier Content” available until the carrier has deployed controls able to restrict under-aged users’ access to such material.

responsible for, nor in control of), contingent upon such tools being commercially available and reasonably effective.<sup>97</sup>

While the implementation of advanced parental control technologies is left to individual wireless providers and third-party application vendors, the guidelines play an important role in providing a set of baseline requirements that help standardize content classifications for the carrier-content available on wireless devices. This in turn facilitates the outreach and educational campaigns (some of which are discussed below) intended to inform parents about the types of content accessible via wireless devices, as well as the tools available to offer children a safe user experience.

In addition to the *Guidelines for Carrier Content Classification and Internet Access*, CTIA has worked with carriers and other members of the mobile wireless ecosystem to develop *Best Practices and Guidelines for Location-Based Services* to promote and protect user privacy as new Location-Based Services (“LBS”) are developed and deployed.<sup>98</sup> The LBS Guidelines provide special protections for children, and they recognize that in some circumstances – including to protect the safety of children – a wireless carrier’s account holder (rather than an authorized user, such as a child) may need to determine whether an LBS may be used at all or a location disclosed to a third-party. For example, a parent/account holder may want to subscribe to an LBS to know when a child arrives at school or may want to prevent the disclosure of a child’s location information for safety reasons.

CTIA has also developed *Best Practices and Guidelines for Mobile Financial Services*, intended to foster an environment in which transactions are authorized, secure, and compliant

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<sup>97</sup> *Guidelines for Carrier Content Classification and Internet Access*.

<sup>98</sup> Best Practices and Guidelines for Location-Based Services, CTIA Consumer Info, at [http://www.ctia.org/consumer\\_info/service/index.cfm/AID/11300](http://www.ctia.org/consumer_info/service/index.cfm/AID/11300) (last accessed Feb. 12, 2010).

with applicable laws and industry guidelines, all in order to protect user privacy and financial data.<sup>99</sup> In particular, these best practices require providers of age-restricted products to include clear and conspicuous warnings and verification/age-screening before authorizing purchases.<sup>100</sup>

In addition, CTIA launched a Common Short Code Auditing and Monitoring Initiative to ensure that promotional materials used to market short codes comply with industry best practices.<sup>101</sup> The initiative provides wireless operators with an ongoing monitoring and assessment process over third-party content providers' compliance with best practices, and it is intended to offer parents and children greater protection from non-compliant marketers.

Other industry organizations have developed tools to help the industry empower parents and protect children as they access content on mobile wireless devices. The Mobile Marketing Association, for example, has released a set of *Consumer Best Practices Guidelines* for mobile marketers, which provide detailed guidance covering a broad range of issues and include a dedicated section on marketing to children.<sup>102</sup> The guidelines note that:

The offering of programs that engage children under 13 in the promotion/consumption of digital content of any type (including SMS and MMS) imposes important ethical obligations, responsibilities, and sensitivity that all industry participants are expected to uphold. The Consumer Best Practices Guidelines call for all participants in the ecosystem to ensure that their activities and their businesses are consistent with and supportive of the principles listed in this section.<sup>103</sup>

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<sup>99</sup> See Cellular News, "CTIA Announces Industry Guidelines for Mobile Financial Services," Feb. 21, 2009, at <http://www.cellular-news.com/story/36168.php>.

<sup>100</sup> Mobile Financial Services Action Team, CTIA Business Resources, at [http://www.ctia.org/business\\_resources/wic/index.cfm/AID/11507](http://www.ctia.org/business_resources/wic/index.cfm/AID/11507) (last accessed Feb. 12, 2010).

<sup>101</sup> CTIA—The Wireless Association® Launches Common Short Codes Media Monitoring Process, CTIA Press Release (June 15, 2009), at <http://www.ctia.org/media/press/body.cfm/prid/1825> (last accessed Feb. 12, 2010); see also Best Practices, Common Short Code Administration, at [http://www.usshortcodes.com/csc\\_best\\_practices.html](http://www.usshortcodes.com/csc_best_practices.html) (last accessed Feb. 12, 2010).

<sup>102</sup> Consumer Best Practices Guideline, Mobile Marketing Association, at <http://www.mmaglobal.com/policies/consumer-best-practices> (last accessed Feb. 12, 2010).

<sup>103</sup> *Id.* at 16.

In addition, TRUSTe has developed a specialized Children’s Privacy Seal to assist parents and ensure child safety.<sup>104</sup> The Seal certifies that a website is compliant with the Children’s Online Privacy Protection Act and is “child-friendly.” Participants in the Seal program, moreover, must open themselves up to TRUSTe’s ongoing site monitoring and dispute resolution program.

## **2. Individual and Competitive Efforts to Provide Parents with “Choice and Control”**

Though the “mobile nature of media today” has affected the “ability of parents to monitor their children’s media consumption,”<sup>105</sup> the wireless industry has proactively deployed effective tools that empower parents, and it will continue to do so in the future. Many wireless carriers currently take substantial steps to help parents protect children’s safety when they are using new mobile wireless media technologies. For example, carriers provide parents with a variety of tools that can control children’s access to certain content (*e.g.*, filters) and prevent the distribution of inappropriate content (*e.g.*, feature or service limits); educate children and parents about how to be safe online; and provide parents with options to manage their children’s messaging, calling, and data usage.<sup>106</sup>

*Carrier-Provided Parental and Content Controls.* The major wireless carriers have devoted considerable resources to developing and implementing carrier-specific parental control mechanisms, as discussed in more detail below.

AT&T’s MEdia™ Net Parental Control service allows parents to restrict access to its carrier content that they believe may be inappropriate for their children, and allows them to

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<sup>104</sup> Prioritizing Children’s Online Privacy, TRUSTe Children’s Privacy Seal, at [http://www.truste.org/businesses/childrens\\_privacy\\_seal.php](http://www.truste.org/businesses/childrens_privacy_seal.php) (last accessed Feb. 12, 2010).

<sup>105</sup> See *NOI* ¶ 41.

<sup>106</sup> Recent research suggests that parental restrictions limiting the number of text messages or other messages that children send may relate to a lower likelihood of sexting. See *December 2009 Pew Report* at 10.

prevent the purchase of downloaded games, ringtones, and graphics from AT&T and its content-provider partners.<sup>107</sup> MEdia™ Net Parental Control is included at no additional recurring charge to subscribers, though it does require the use of handsets compatible with MEdia™ Net and the accompanying parental control service. AT&T also provides its Smart Limits for Wireless™ service to consumers. This allows parents to impose a monthly limit on the number of minutes a child can browse the Internet with his or her wireless device, the number of text and instant messages sent and received by children, and the dollar amount of downloaded purchases.<sup>108</sup> Parents also can restrict the times of day for messaging, browsing, and outbound calling, and the phone numbers to and from which a wireless device can either make or receive calls and text messages.

Sprint Nextel offers parents a variety of network- and handset-based options for parents to control their children's access to and use of Sprint products and services.<sup>109</sup> These tools provide parents with the ability to restrict premium content purchases, text messages, and access to the Internet, as well as the capability to limit incoming and outgoing voice calls to phone numbers specified in the handset's phone book. Parents also can purchase a handset designed with built-in control tools that allow certain device features to be locked, such as the handset's camera. Sprint Nextel also has partnered with the Boys & Girls Clubs of America, the National Center for Missing & Exploited Children ("NCMEC"), and the National Education Association ("NEA") to create the 4NetSafety<sup>SM</sup> program, which provides students, teachers, parents, and

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<sup>107</sup> See Parental Controls, AT&T, at <http://www.wireless.att.com/learn/articles-resources/parental-controls/index.jsp> (last accessed Feb. 12, 2010).

<sup>108</sup> See *id.* Parents also have the capability with AT&T's controls to customize these limits for each child on the service plan.

<sup>109</sup> See Sprint Parental Control, Sprint Nextel, at <http://www1.sprintpcs.com/explore/ueContent.jsp?scTopic=parentalControl> (last accessed Feb. 12, 2010).

guardians with the tools and information they need to teach children and “tweens” how to use the Internet more safely.<sup>110</sup> The 4NetSafety resources, which are all free of charge, and the entire safety initiative come on the heels of Sprint Nextel recently fulfilling its three-year, \$3-million commitment to Internet safety for young people.<sup>111</sup>

T-Mobile’s Web Guard option allows parents to prohibit access to certain websites with adult-oriented content.<sup>112</sup> T-Mobile also allows message controls and enables filtering of incoming and outgoing text messages, picture messages, instant messages, and e-mail as per the user’s settings.<sup>113</sup> Both Web Guard and T-Mobile’s message control services currently are free of charge to T-Mobile subscribers. In addition, T-Mobile’s Family Allowances<sup>SM</sup> Service assists customers with managing when and how their family members use T-Mobile phones and service by permitting the primary account holder to assign allowances for minutes, messages, and downloads to each separate line on the account, with the flexibility to set up to ten “Always Allowed” and ten “Never Allowed” numbers.<sup>114</sup> Both Family Allowances<sup>SM</sup> and Web Guard enable customers to better control the usage of a line on an account. While Web Guard helps customers manage the *type of content accessed* on a device, Family Allowances<sup>SM</sup> permits customers to control the *amount* of usage. These features empower customers, giving them

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<sup>110</sup> See, e.g., *NEA Health Information Network and Sprint expand Internet safety resources for educators and parents*, Sprint Nextel Press Release (Jan. 13, 2009), available at [http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle\\_newsroom&ID=1244706](http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle_newsroom&ID=1244706) (last accessed Feb. 12, 2010); *Sprint Creates Safety Program for Kids Using Computers, Mobile Phones and Gaming Systems*, TMCnet.com (Dec. 21, 2009), available at <http://fixed-mobile-convergence.tmcnet.com/topics/mobile-communications/articles/71456-sprint-creates-safety-program-kids-using-computers-mobile.htm> (last accessed Feb. 12, 2010).

<sup>111</sup> See *id.*

<sup>112</sup> See Family Friendly Features, T-Mobile, at [http://www.t-mobile.com/shop/addons/services/information.aspx?PAsset=FamilyWireless&tp=Svc\\_Tab\\_FW101ProtectYourKids](http://www.t-mobile.com/shop/addons/services/information.aspx?PAsset=FamilyWireless&tp=Svc_Tab_FW101ProtectYourKids) (last accessed Feb. 12, 2010).

<sup>113</sup> See *id.* T-Mobile also provides blocking of international long distance calling for any line.

<sup>114</sup> “Always Allowed” numbers are reachable even when a user has exceeded a set maximum, and 9-1-1 calls do not count against the allowed numbers and minutes.

greater flexibility in managing account activity (such as managing minutes, messages and downloads).

Verizon Wireless's website includes a Parental Controls Center that explains the suite of family safety options available to parents from the carrier.<sup>115</sup> Included are features to create allowances on voice minutes and text messages; time restrictions that limit and control a child's use of his or her mobile device during a certain time of day or day of week; blocked phone numbers that cannot call or message a child's phone or be called or messaged from that phone; trusted phone numbers that are available for calling and messaging regardless of usage allowances or time restrictions; and Internet spam filters that prevent either all messages sent from the Web or messages from designated addresses.<sup>116</sup> Verizon Wireless subscribers also can filter content according to certain age categories, with available filter settings adjusted for children ages 7 and over, 13 and over, and 17 and over.<sup>117</sup> These filters work on the provider's VCAST video and music services, as well as Verizon Wireless's Mobile Web 2.0 browser.<sup>118</sup> Verizon Wireless also offers Family Locator, formerly known as Chaperone, a tool that allows parents to define a specific geographic zone for children carrying Verizon Wireless handsets, with parents then receiving text and/or e-mail alerts indicating their child's location when they leave that zone.<sup>119</sup>

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<sup>115</sup> See Parental Controls Center, Verizon Wireless, at <http://parentalcontrolcenter.com/> (last accessed Feb. 12, 2010).

<sup>116</sup> See Usage Controls, Verizon Wireless, at [https://wbillpay.verizonwireless.com/vzw/nos/uc/uc\\_home.jsp](https://wbillpay.verizonwireless.com/vzw/nos/uc/uc_home.jsp) (last accessed Feb. 12, 2010); Wireless Support, Verizon Wireless, at [http://support.vzw.com/faqs/Features%20and%20Optional%20Services/spam\\_controls.html](http://support.vzw.com/faqs/Features%20and%20Optional%20Services/spam_controls.html) (last accessed Feb. 12, 2010).

<sup>117</sup> See Content Filters, Verizon Wireless, at [https://wbillpay.verizonwireless.com/vzw/nos/uc/uc\\_content\\_filter.jsp](https://wbillpay.verizonwireless.com/vzw/nos/uc/uc_content_filter.jsp) (last accessed Feb. 12, 2010).

<sup>118</sup> See *id.*

<sup>119</sup> See Family Locator, Verizon Wireless, at [http://products.verizonwireless.com/index.aspx?id=fnd\\_familylocator](http://products.verizonwireless.com/index.aspx?id=fnd_familylocator) (last accessed Feb. 12, 2010).

Furthermore, numerous carriers, such as the major carriers listed above and smaller carriers such as U.S. Cellular, Cricket Wireless, nTelos and MetroPCS, provide information on their websites about Wireless AMBER Alerts<sup>TM</sup> and how to subscribe to this service. This program, created through a partnership with the NCMEC, is discussed in greater detail below.

*Manufacturer-Provided Parental and Content Controls.* Product manufacturers have also deployed effective parental and content controls to help protect children. For example, the Apple iTunes Store includes content-based age ratings for apps, and the iPhone allows users to restrict apps based on their rating. Apple's rating system includes four categories: 4+, 9+, 12+, and 17+. <sup>120</sup> Given the intense competition in the app marketplace, CTIA anticipates that other manufacturers will also deploy tools to empower parents with choice and control.

*Third-Party Efforts.* In addition to carrier-provided advanced technologies and parental controls, consumers today can independently download third-party solutions to their wireless devices through app stores, websites, and other outlets, opening up a host of additional content management tools for parents. One such third-party application is eAgency's "Radar – My Mobile Watchdog" parental monitoring system. This handset-based solution sends parents an alert when a child receives calls and messages from unauthorized or unapproved sources. It also allows parents to view and archive remotely (from a website accessible to parents) all of the text, e-mail, and instant messages that their children send and receive. <sup>121</sup>

Ventraq's Parent Patrol® service, formerly Ace\*Comm's "Content Patrol<sup>TM</sup>" is another third-party parental control application, offering a network-based solution that currently allows

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<sup>120</sup> See Apple iTunes Store and product descriptions as of February 12, 2010.

<sup>121</sup> See My Mobile Watchdog, at <http://www.mymobilewatchdog.com/> (last accessed Feb. 12, 2010). Products apparently similar to My Mobile Watchdog include the Mobile Spy Smartphone Monitoring system, see <http://www.mobile-spy.com/> (last accessed Feb. 12, 2010), which likewise focuses on allowing parents to monitor children's calls, messages, and URLs visited; and SMobile System's Mobile Parental Control & Monitoring, see <http://www.smobilesystems.com/parental-controls/> (last accessed Feb. 12, 2010).

filtering of wireless web and WAP-based content.<sup>122</sup> The company's marketing materials also describe a range of other services that give parents the ability to restrict usage of wireless devices to certain times of day or limit the phone numbers a child can call.

Several parental control applications developed for the iPhone platform are marketed directly to parents and consist generally of a browser that replaces the native Apple browser on the device. Three such iPhone apps are the iWonder browser, which allows parents to disable wireless web browsing or restrict access to certain sites, and also allows them to view remotely (from the parents' own computer or wireless device) the sites that the child visits;<sup>123</sup> the Mobicip browser, which is marketed as a "kid-safe" browser that provides real-time content filtering at three pre-defined levels based on the child's age;<sup>124</sup> and the Safe Eyes Mobile browser, which utilizes a blacklisted website address categorization and filtering approach to prevent viewing of and visits to certain sites.<sup>125</sup>

There also are a growing number of parental control application and turnkey-solution developers marketing their products to wireless carriers and other industry participants.<sup>126</sup>

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<sup>122</sup> See Ventrak Parent Patrol, at <http://www.ventraq.com/index.php/solutions/patrol-suite/parent-patrolr> (last accessed Feb. 12, 2010).

<sup>123</sup> See iWonder Surf Web Browser, Apptism, at <http://www.apptism.com/apps/iwonder-surf> (last accessed Feb. 12, 2010).

<sup>124</sup> See Mobicip, at <http://www.mobicip.com/> (last accessed Feb. 12, 2010).

<sup>125</sup> See Safe Eyes Mobile, InternetSafety.com, at <http://www.internetsafety.com/safe-eyes-mobile-iphone.php> (last accessed Feb. 12, 2010).

<sup>126</sup> See, e.g., Cisco's mobile Safe Exchange Framework, [http://www.cisco.com/en/US/netsol/ns603/networking\\_solutions\\_solution.html](http://www.cisco.com/en/US/netsol/ns603/networking_solutions_solution.html) (last accessed Feb. 12, 2010), which allows carriers to provide customers with flexible filtering options capable of applying different parameters at different times of day; RuleSpace's mobile data filtering tools and applications, <http://www.rulespace.com/mobile.php> (last accessed Feb. 12, 2010), which are already integrated to some degree into the solutions deployed by carriers and companies such as AT&T, Verizon Wireless, T-Mobile, and RIM; AdaptiveMobile's adult content controls, <http://www.adaptivemobile.com/Solutions/listcat/16> (last accessed Feb. 12, 2010), which aim to allow controls for handling inappropriate web and WAP sites as well as pornographic MMS and SMS messages; and Airwide's network management applications, <http://www.airwidesolutions.com/ContentFiltering.html> (last accessed Feb. 12, 2010), which include anti-spam and content filtering components.

Although not typically marketed directly to end users, these products and services increase the range and number of choices available to parents.

Third-party applications, together with the tools made available directly to subscribers by their wireless carriers, give parents a wide variety of sophisticated, easy-to-use options for controlling content on wireless devices. Wireless subscribers today already shop for and make ready use of these tools to manage the content their children receive, and it is not surprising, therefore, that a robust and competitive market has emerged to respond to the concerns of parents, with more advanced filters and access controls likely on the way. As described below, CTIA believes that education is the best way to ensure parents are aware of the plethora of tools available to assist in efforts to ensure their children are utilizing mobile devices and services for responsible and positive purposes.

## **B. The Wireless Industry Has Proactively Developed a Series of Educational Outreach and Partnership Efforts to Empower Parents and Protect Children**

The *NOI* also sought comment as to “how great a role media literacy can play” in enabling children to enjoy the benefits of electronic media while avoiding the potential harms, and “what actions can be taken to promote media literacy.”<sup>127</sup> CTIA, The Wireless Foundation, and CTIA members have launched a number of educational initiatives designed to generate awareness of the variety of mobile content control tools and promote safe and responsible use of mobile devices and services.

### **1. Education**

*CTIA and the Wireless Foundation.* In 1991, CTIA’s member companies established The Wireless Foundation, a non-profit organization that takes an active role in educating children,

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<sup>127</sup> See *NOI* ¶ 50.

parents, teachers and policymakers about the wireless industry's efforts to ensure that younger users are safe while using wireless technology. The Wireless Foundation conducts national and regional conferences bringing together online safety experts, policymakers, and education professionals to promote the safe use of wireless technology and discuss best practices. In addition, it maintains a "Wireless Online Safety" section on its website that contains information for parents and educators to help keep children safe as they increasingly use wireless devices.<sup>128</sup> The site includes links to wireless carriers' respective content access controls as well as a model Family Cell Phone Agreement. This Agreement is a contract that parents and their children can use to frame family discussions about safe and responsible use of wireless devices and to educate the entire family regarding the potential threats to children from harmful content, unwanted contact, and inappropriate conduct.<sup>129</sup>

Since 1990, CTIA and wireless carriers across the country have co-sponsored National Wireless Safety Week to raise awareness about the important role wireless technology can play in enhancing public and personal safety.<sup>130</sup> And on May 12, 2009, CTIA President & CEO Steve Largent participated in an online child safety panel hosted by the National Association of Attorneys General at the 2009 Presidential Initiative Summit in Philadelphia.<sup>131</sup> During his remarks, Mr. Largent announced a new initiative in the wireless industry's efforts to educate

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<sup>128</sup> See *Wireless Online Safety*, The Wireless Foundation, at <http://www.wirelessfoundation.org/WirelessOnlineSafety/index.cfm> (last accessed Feb. 12, 2010).

<sup>129</sup> See *Family Cell Phone Agreement*, The Wireless Foundation, at [http://www.wirelessfoundation.org/WirelessOnlineSafety/family\\_cellphone\\_agreement.cfm](http://www.wirelessfoundation.org/WirelessOnlineSafety/family_cellphone_agreement.cfm) (last accessed Feb. 12, 2010).

<sup>130</sup> See, e.g., *Wireless Safety Week*, CTIA Media, at <http://ctia.org/media/index.cfm/AID/11406> (last accessed Feb. 12, 2010).

<sup>131</sup> See *Keeping Kids Safe in a Mobile Environment*, CTIA – The Wireless Association® Blog, at <http://www.ctia.org/blog/index.cfm/2009/5/12/Keeping-Kids-Safe-in-a-Mobile-Environment> (last accessed Feb. 12, 2010).

parents about wireless online safety—the “SAFETY” guide. Focused on the key element of consumer education for wireless online safety, CTIA and the Wireless Foundation developed six simple tips for parents to start the discussion with their kids about responsible mobile behavior:

**S** = Smart

**A** = Aware

**F** = Familiar

**E** = Experience

**T** = Talk

**Y** = Yearly Review<sup>132</sup>

State Attorneys General and other law enforcement officials have taken notice of the resources available through The Wireless Foundation’s “Wireless Online Safety” portal. For instance, on January 6, 2009, Texas Attorney General Greg Abbott held news conferences in Dallas and Austin encouraging parents to utilize tools that can help protect young wireless device users from harmful content and child predators. Attorney General Abbott directed parents to The Wireless Foundation’s website to find tips for keeping their children safe in a wireless environment.<sup>133</sup>

As another initiative, The Wireless Foundation has collaborated with the Weekly Reader Corporation since 2005 on *Get Wise About Wireless*, a program that helps educate students about cell phone use and the responsible behaviors associated with using cell phones. The program was designed to encourage educators and families to help their students practice proper cell phone etiquette and safety behaviors, and it serves as a catalyst for discussions at home among

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<sup>132</sup> See *id.*; see also Wireless Online S-A-F-E-T-Y Tips, CTIA Consumer Info, at [http://ctia.org/consumer\\_info/safety/index.cfm/AID/11648](http://ctia.org/consumer_info/safety/index.cfm/AID/11648) (last accessed Feb. 12, 2010).

<sup>133</sup> See *Texas Attorney General Urges Parents to Protect Young Cell Phone Users*, Government Technology (Jan. 6, 2009), at <http://www.govtech.com/gt/580676?topic=117671> (last accessed Feb. 12, 2010).

family members about using wireless technology in their day-to-day lives.<sup>134</sup> The *Get Wise About Wireless* program provides an instructional kit that contains a teacher’s guide, a family take-home pamphlet, a classroom poster and a student mini-magazine, all of which help educate students about wireless device usage and responsible behaviors associated with such usage. In addition, through their *Get Wise About Wireless* program, The Wireless Foundation and the Weekly Reader conduct an annual script writing contest, open to students enrolled in grades 6 through 8, about what the student would do if they received an inappropriate text message on their cell phone. Based on the analysis from Weekly Reader Corporation, the *Get Wise About Wireless* program has reached a total audience of nearly 6,000,000 teachers, students and parents, significantly exceeding expectations. Program materials received “excellent” or “above average” ratings of over 90% from participating teachers.<sup>135</sup>

The Wireless Foundation also collaborated with the National Crime Prevention Council (“NCPC”) and funded the production of NCPC’s 2009-2010 Crime Prevention Month Kit.<sup>136</sup> Among other things, the Kit contains online safety tips and information about cyberbullying, sexting, social networking dangers, and other risks. It also includes information from the *Get Wise About Wireless* program and a contract for responsible wireless phone use.

In addition, CTIA recently engaged with the National Safety Council to educate young people about the dangers of distracted driving. The *On Road, Off Phone* campaign provides a video and website with information and tips to empower parents to talk to their teenage drivers

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<sup>134</sup> See *Get Wise About Wireless*, The Wireless Foundation, at <http://www.wirelessfoundation.org/GetWise/index.cfm> (last accessed Feb. 12, 2010).

<sup>135</sup> See *id.*

<sup>136</sup> *Staying Safe in a High-Tech World*, Crime Prevention Month Kit 2009-2010, available at <http://www.ncpc.org/programs/crime-prevention-month/crime-prevention-month-kits/Crime%20Prevention%20Month%20Kit%202009-2010.pdf> (last accessed Feb. 18, 2010).

about the dangers of potential distracted driving resulting from cell phone use while behind the wheel.<sup>137</sup>

*TRUSTe.* Similarly, TRUSTe provides on its website its Online Privacy: A Tutorial for Parents and Teachers.<sup>138</sup> The tutorial focuses on the topic of online privacy risks and how to discuss them with children, emphasizing the need for adults and children alike to be good cybercitizens.

*Public Service Announcements.* Other organizations also are providing outreach to children through public service announcements (“PSAs”). For example, MTV News recently aired a special “Sexting in America: When Privates Go Public” program to inform people about sexting, cyberbullying and online harassment, and the related consequences of those activities.<sup>139</sup> As another example, a series of LG Mobile PSAs featuring James Lipton of *Inside the Actors Studio* urge young people to “give it a ponder” before they use mobile devices to spread hurtful gossip or inappropriate images. These ads garnered national attention from several well-read information platforms.<sup>140</sup>

The industry’s efforts to educate consumers are working effectively. In fact, in a National Consumer Study conducted in March 2009, MyWireless.Org® found that the majority of respondents – 62% – were aware that wireless carriers offer parental controls that allow

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<sup>137</sup> <http://info.howcast.com/onroadoffphone>.

<sup>138</sup> *Online Privacy: A Tutorial for Parents and Teachers*, TRUSTe, available at [http://www.truste.com/pdf/parent\\_teacher\\_tutorial.pdf](http://www.truste.com/pdf/parent_teacher_tutorial.pdf) (last accessed Feb. 12, 2010).

<sup>139</sup> *MTV News’ ‘Sexting In America: When Privates Go Public’ Premieres On Valentine’s Day*, MTV (Feb. 3, 2010), at [http://www.mtv.com/news/articles/1631123/20100203/asher\\_roth.jhtml](http://www.mtv.com/news/articles/1631123/20100203/asher_roth.jhtml) (last accessed Feb. 12, 2010).

<sup>140</sup> *See, e.g., James Lipton’s beard protecting teens’ junk*, AdFreak.com (Dec. 2, 2009), at <http://adweek.blogs.com/adfreak/2009/12/james-liptons-beard-preaches-safe-texting.html> (last accessed Feb. 12, 2010); *James Lipton Teaches Teens to Think Before They Text*, Jezebel.com (Dec. 2, 2009), at <http://jezebel.com/5417094/james-lipton-teaches-teens-to-think-before-they-text> (last accessed Feb. 12, 2010); *James Lipton in hilarious LG ad campaign: “Before You Text, Give it a Ponder,”* BoingBoing.net (Dec. 4, 2009), at <http://www.boingboing.net/2009/12/04/james-lipton-in-hila.html> (last accessed Feb. 12, 2010).

parents to restrict a child's cell phone use and place limits on a child's wireless Internet access, texting and downloads.<sup>141</sup>

## 2. Partnerships

In addition to the crime prevention partnership with the NCPC discussed above, CTIA and the Wireless Foundation also have forged successful partnerships with groups such as the NCMEC, the National Coalition for the Protection of Children and Families, and the Family Online Safety Institute. CTIA also participates on the U.S. Commerce Department's National Telecommunications and Information Administration Online Safety and Technology Working Group.

*AMBER Alerts.* In 2005 the wireless industry and The Wireless Foundation partnered with the United States Department of Justice and NCMEC to create the Wireless AMBER Alerts™ Program, a key example of the wireless industry's commitment to harnessing the convenience and ubiquity of wireless technology to safeguard children.<sup>142</sup> By making potentially life-saving AMBER Alert text messages available to wireless subscribers who "opt in" to the offering, this program significantly increases the reach of the AMBER Alert notification program. The carriers currently participating collectively provide service to more than 90% of U.S. wireless customers, and the program recently helped with the recovery of an 11-year-old Seat Pleasant, Maryland girl that was found in Tennessee.<sup>143</sup>

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<sup>141</sup> MyWireless.org® National Consumer Survey (conducted March 23-25, 2009).

<sup>142</sup> See Wireless AMBER Alerts™, CTIA Consumer Info, at [http://www.ctia.org/consumer\\_info/service/index.cfm/AID/10361](http://www.ctia.org/consumer_info/service/index.cfm/AID/10361) (last accessed Feb. 12, 2010) (explaining that Amber alerts are free text messages available to wireless subscribers who have signed up to receive such messages when a child has been abducted, thereby allowing alert recipients to serve as the extra "eyes and ears that public safety officials vitally need" in such situations).

<sup>143</sup> See *Abducted Seat Pleasant girl located in Tennessee*, Gazette.net (Feb. 15, 2010), at [http://www.gazette.net/stories/02152010/prinnew140626\\_32567.php](http://www.gazette.net/stories/02152010/prinnew140626_32567.php) (last accessed Feb. 18, 2010).

*Wireless Child Safety Task Force.* In 2008, CTIA and industry representatives, working with NCMEC, created the Wireless Child Safety Task Force to address broader child safety issues arising from the use of wireless networks and services.<sup>144</sup> The Task Force identifies, reviews, and supports actions that can further deter child pornography on wireless networks, including efforts to develop solutions that can be lawfully executed while safeguarding consumer privacy. CTIA’s Wireless Child Safety Task Force also plans to develop an educational initiative that will expand the ongoing work of The Wireless Foundation to inform the public – especially parents and children – about best practices for safe wireless Internet behavior.

*Family Online Safety Institute.* In addition, The Wireless Foundation supports a number of child safety and consumer protection organizations. For example, The Wireless Foundation presently holds a seat on the board of the Family Online Safety Institute (“FOSI”), a Washington-based, international organization whose mission is to identify best practices for online safety by bringing together the online industry, government, non-government organizations, academics and others. On April 22, 2009, The Wireless Foundation and FOSI co-sponsored a wireless online safety conference, which focused on wireless-specific aspects of online safety such as mobility and location-based services.<sup>145</sup>

*NTIA Online Safety and Technology Working Group.* Finally, a CTIA representative has been appointed to the National Telecommunications and Information Administration’s (“NTIA”) Online Safety and Technology Working Group, established under Section 214 of the “Protecting

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<sup>144</sup> See, e.g., *CTIA–The Wireless Association® Launches Partnership With National Center For Missing & Exploited Children To Combat Child Pornography*, NCMEC News & Events (Nov. 17, 2008), at [http://www.missingkids.com/missingkids/servlet/NewsEventServlet?LanguageCountry=en\\_US&PageId=3869](http://www.missingkids.com/missingkids/servlet/NewsEventServlet?LanguageCountry=en_US&PageId=3869) (last accessed Feb. 12, 2010).

<sup>145</sup> See *Agenda - Keeping Kids Safe in a Mobile Environment*, FOSI Events, at <http://www.fosi.org/cms/index.php/previous-events-2009/348-agenda-kidssafe.html> (last accessed Feb. 12, 2010).

Children in the 21st Century Act.”<sup>146</sup> Through its participation in this working group, the wireless industry will provide and receive important insights about efforts that should be taken to ensure that children have safe online experiences.

**C. The Commission Should Encourage Stakeholders to Help Educate Parents and Children Regarding Responsible Mobile Device Practices.**

Given the wireless industry’s ongoing commitment to protecting children and empowering parents with “choice and control,” there is no need for burdensome technology deployment requirements, or for proscriptive regulations, in this area. The FCC should, however, encourage other stakeholders to help educate parents and children regarding responsible mobile device practices. For example, parents, schools, libraries, community centers, and organizations that regularly interface with children can promote mobile media literacy, similar to how they teach kids about responsible online practices, financial habits, safety and emergency preparedness, health education, and other subjects. The Commission should also inventory efforts by other government agencies and by the private sector so that the FCC’s Kids Zone, Parents’ Place, and similar websites can direct parents, children, and other stakeholders to other federal and state resources. Through these actions, the FCC can be a valuable source for efforts to assist children using mobile devices.

In addition, the Commission should join CTIA in expressing support for the Adolescent Web Awareness Requires Education Act (“AWARE Act”) that will promote online safety education through government grants to educational agencies, nonprofit organizations, and schools to carry out Internet crime awareness and cybercrime prevention programs.<sup>147</sup> Grant recipients would be authorized to use the funds for identifying, developing, and implementing

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<sup>146</sup> 15 U.S.C. § 6554.

<sup>147</sup> See H.R. 3630, 111<sup>th</sup> Cong. (introduced 2009).

programs, providing professional training to teachers and school personnel on cybercrime awareness and prevention, and coordinating and funding research to investigate online risks to children.<sup>148</sup>

**V. CTIA SUPPORTS CONTINUED COORDINATION OF GOVERNMENTAL EFFORTS AND APPLAUDS THE FCC’S PARTICIPATION IN THOSE EFFORTS**

The FCC seeks comment on what it can do to assist or supplement ongoing governmental efforts to address the issues raised in the *NOI*.<sup>149</sup> CTIA encourages further coordination among government entities reviewing these issues and applauds the FCC’s participation in those efforts.

As the Commission is aware, different agencies, including those at federal and state levels, have unique audiences and areas of expertise. By coordinating efforts and sharing helpful information and trend data with industry participants, agencies can develop a broader vision and perspective and have a more effective impact on empowering parents with choice and control. The recent efforts between the FCC, Federal Trade Commission (“FTC”), and the U.S. Department of Education (as part of the OnGuardOnline public-private coalition) to release the *Net Cetera* online safety guidebook for parents is a positive example of how government agencies can help protect children.<sup>150</sup> Among other things, the *Net Cetera* guidebook can help parents communicate with their children about using mobile phones safely and responsibly.

CTIA applauds the FCC for its participation in OnGuardOnline and the *Net Cetera* booklet, and for its Parents’ Place website (which includes a Fact Sheet on protecting children

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<sup>148</sup> *Id.*

<sup>149</sup> *NOI* ¶ 57.

<sup>150</sup> See *FCC Chairman Genachowski Joins Education Secretary Duncan and FTC Chairman Leibowitz in Introducing Online Safety Guidebook for Parents*, FCC News Release (Dec. 16, 2009), available at [http://www.fcc.gov/Daily\\_Releases/Daily\\_Business/2009/db1216/DOC-295266A1.pdf](http://www.fcc.gov/Daily_Releases/Daily_Business/2009/db1216/DOC-295266A1.pdf) (last accessed Feb. 12, 2010).

form objectionable content on wireless devices). The Commission should seek out similar opportunities to coordinate government efforts wherever possible including, as mentioned above, by offering its expertise to the U.S. Department of Education and assisting that agency as it develops the National Educational Technology Plan.<sup>151</sup> Such outreach from the FCC could have supplemented recent FTC reports on mobile commerce, violent entertainment, and explicit content in online virtual worlds.<sup>152</sup> As mentioned above, the Commission also should inventory efforts by other government agencies and by the private sector so that its website can direct parents, children, and other stakeholders to helpful resources.

Several states, through their attorneys general, are taking an active role in online safety, and CTIA is working closely with them. For example, in November 2009, the Illinois Attorney General held a Cyber Safety Summit, “bringing together state and local law enforcement officials, school officials, and technology industry experts to discuss youth cyber safety and identify strategies to combat the dangers that come with children and teens’ widespread access to online and mobile technologies.”<sup>153</sup> The Illinois Attorney General also introduced a “Stop Cyberbullying” website ([www.ebully411.com](http://www.ebully411.com)) to provide more information to parents, children, and others about cyberbullying, including news, frequently asked questions, and a phone- and

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<sup>151</sup> See National Educational Technology Plan, at <https://edtechfuture.org/> (last accessed Feb. 12, 2010).

<sup>152</sup> See *FTC Issues Staff Report on Mobile Commerce Marketplace*, FTC News Release (Apr. 22, 2009), available at <http://www.ftc.gov/opa/2009/04/mobilerpt.shtm> (last accessed Feb. 12, 2010); *FTC Renews Call to Entertainment Industry to Curb Marketing of Violent Entertainment to Children*, FTC News Release (Dec. 3, 2009), available at <http://www.ftc.gov/opa/2009/12/violentent.shtm> (last accessed Feb. 12, 2010); *FTC Report Finds Sexually and Violently Explicit Content in Online Virtual Worlds Accessed by Minors; Recommends Best Practices to Shield Children and Teens*, FTC News Release (Dec. 10, 2009), available at <http://www.ftc.gov/opa/2009/12/virtualworlds.shtm> (last accessed Feb. 12, 2010).

<sup>153</sup> See *Survey Shows Cyber Activity Starting at Younger Ages; Increasingly Includes Risky Behavior: Attorney General Madigan Convenes First Ever Cyber Summit; Launches Cyberbullying Web Site to Educate Children, Parents and Teachers*, Illinois Attorney General Press Release (Nov. 18, 2009), available at [http://www.illinoisattorneygeneral.gov/pressroom/2009\\_11/20091118.html](http://www.illinoisattorneygeneral.gov/pressroom/2009_11/20091118.html) (last accessed Feb. 12, 2010).

web-based hotline resource.<sup>154</sup> In addition, the Wisconsin Attorney General held a public safety summit in October 2009 that included a “Digital Dangers” component encompassing cyberbullying and sexting.<sup>155</sup> To build on these successful efforts, the FCC and other federal agencies may wish to coordinate with state attorneys general on future efforts or campaigns to educate parents and children on responsible use.

## **VI. CONCLUSION**

Today’s tech-savvy children continue to embrace mobile technologies for educational, entertainment, safety, and other purposes. Innovative mobile wireless services offer accessible broadband to the person and provide substantial educational, health, civic, safety, and even personalized benefits for children of all ages and resources, and the FCC should encourage and incentivize their deployment and adoption wherever possible. Despite the migration of challenges of protecting children online to the “open” mobile wireless ecosystem, the wireless industry continues to empower parents with choice and control over mobile wireless content so that they may determine what is appropriate for their children and encourage responsible behavior. The wireless industry also has launched a number of educational outreach initiatives and partnerships designed to promote mobile safety and responsible use.

Given the industry’s ongoing commitment, the FCC can and should encourage stakeholders to help educate parents and children regarding safe, responsible mobile device practices which will do more than any proscriptive regulatory regime intended to protect children. It should further encourage greater coordination among government entities reviewing

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<sup>154</sup> *Id.*

<sup>155</sup> See Attorney General J.B. Van Hollen to Host Working Summit on Public Safety, Wisconsin Attorney General Press Release (Oct. 16, 2009), available at [http://www.doj.state.wi.us/absolutenm/templates/template\\_share.asp?articleid=1527&zoneid=3](http://www.doj.state.wi.us/absolutenm/templates/template_share.asp?articleid=1527&zoneid=3) (last accessed Feb. 12, 2010).

these issues and become an important resource for information on federal, state, and private-sector efforts to protect children using mobile devices.

Respectfully submitted,

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February 24, 2010